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AN EXPERIMENTAL INVESTIGATION OF THE FACTORS THAT LEAD TO FAT TALK

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A DISSERTATION SUBMITTED TO THE FACULTY OF GRADUATE STUDIES IN
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Abstract

Fat talk describes self-disparaging remarks made about one's weight or shape. Despite the fact that fat talk has been associated with a number of negative outcomes including eating pathology, fat talk has become a social norm and many women engage in it on a regular basis. The factors that lead these women to engage in fat talk are currently unknown. As such, in a series of three studies, I sought to investigate what factors lead to fat talk. This research builds on displacement theory, which holds that experiencing negative affect will lead to increased fat talk. For Study 1, food-related guilt was investigated as a possible factor that leads to fat talk. It was found that undergraduate women were more likely to anticipate initiating a fat talk conversation after undergoing an induction in which they think about eating fattening food (i.e., food-related guilt), and this effect was unique to fat talk rather than other self-disparaging talk. Study 2 replicated and extended the findings of Study 1 by adding an academic-related guilt condition as well as exploring differences between restrained and unrestrained eaters. The findings for food-related guilt replicated and did not emerge for participants in the academic-related guilt condition. In addition, restrained eaters reported an increased likelihood of engaging in self-disparaging talk in general (i.e., they endorsed increased likelihood of initiating both fat talk and unproductive talk conversations) across experimental conditions. In Study 3 I added a sadness condition and explored interpersonal traits as possible predictors of fat talk likelihood. Experiencing decreased body image once again led to increases in anticipated fat talk but experiencing increased sadness did not. Restrained eaters also reported increased fat talk likelihood across experimental conditions. In conclusion, contrary to displacement theory, the present findings suggest that decreased body image specifically, as opposed to any type of negative affect, leads to increased anticipated likelihood of fat talk. Moreover, perhaps due to their tendency to feel more

negatively about their bodies, restrained eaters are more likely to anticipate initiating fat talk across situations. Clinical implications and directions for future research are discussed.

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Fat Talk as a Social Norm in Western Society

Fat talk is a term used to describe self-disparaging remarks made about one's own weight or shape (Nichter & Vuckovic, 1994). That is an established definition of fat talk often referred to in the fat talk literature; however, in practice, not all self-disparaging body talk is considered fat talk. For example if a woman were to complain that she is "as thin as a twig", that type of self-disparaging talk would not be conceptualized as fat talk. As such, a more specific definition of fat talk is useful and the traditional definition of fat talk been narrowed for this dissertation as follows: fat talk is a term used to describe self-disparaging remarks made about one's own weight or shape *being larger than the thin-ideal that is pervasive in Western society*. Examples of this definition of fat talk include comments such as "I feel fat", "My thighs look huge", and "I need to lose weight".

Fat talk is a social phenomenon which is typically reciprocal in nature. As such, the most common response to fat talk is denial that the fat talk initiator is indeed fat and the assertion that the fat talk responder is fat (Salk & Engeln-Maddox, 2011). Fat talk conversations primarily take place among women and these types of social interactions are common across Western societies (Payne et al., 2011). Moreover, there is no relation between a woman's objective body size (i.e., her body mass index) and her engagement in fat talk (Salk & Engeln-Maddox, 2011). As such, fat talk is not simply a reflection of one's body size as it is a common behaviour across Western societies among women of varying body sizes and types.

Most research to date concerning fat talk has been conducted with young Caucasian women living in North America (see Shannon & Mills, 2015 for a review); however, fat talk has also been researched in ethnically diverse populations as well as non-Western societies. For example, Katrevich, Register, and Arguete (2014) found that fat talk was common among

individuals who attended Historically Black Colleges in the US and who self-identified as African American. Moreover, Lee, Taniguchi, Modica, and Park (2013) explored the impact of exposure to fat talk versus weight acceptance talk via social media on women from the US and Korea. They found that Korean women reported greater psychological well-being after exposure to the weight acceptance talk whereas the US women did not appear to be influenced by exposure to either type of talk. These are the only two studies to date that have examined fat talk cross-culturally. As such, we do not currently know how fat talk impacts individuals who do not identify as Caucasian or who do not identify with Western society. The current dissertation will add to this knowledge by recruiting participants from an ethnically diverse population of undergraduate students.

Body talk among men has also been researched but, whereas body talk among women concerns weight and shape, body talk among men tends to focus more so on muscularity (i.e., muscle talk; Sladek, Engeln, & Miller, 2014). Moreover, body talk among men has been found to be situation specific (i.e., it most commonly occurs in objectifying situations such as at the gym; Engeln, Sladek, & Waldron, 2013) and is sometimes positively valenced whereas body talk among women occurs across situations (Nichter, 2000) and is almost exclusively negatively valenced (Payne, et al., 2011). These differences are most likely due to gender differences in societal standards of attractiveness in Western societies (Shannon & Mills, 2015).

The Negative Effects of Fat Talk

Fat talk has been associated with a number of both negative correlates and negative outcomes. Sharpe, Naumann, Treasure, and Schmidt (2013) found that fat talk is a causal risk factor for body dissatisfaction. Body dissatisfaction, in turn, is the primary risk factor for disordered eating (Polivy & Herman, 2002). Fat talk has also been found to be positively

correlated with: depression (Rudiger & Winstead, 2013), negative affect (Jones, Crowther, & Ciesla, 2014), internalization of the thin ideal (Salk & Engeln-Maddox, 2011), perceived sociocultural pressure to be thin (Arroyo & Harwood, 2012), appearance investment (Rudiger & Winstead, 2013), drive for thinness (Warren, Holland, Billings, & Parker, 2012), body-related cognitive distortions (Rudiger & Winstead, 2013), body checking (Jones et al., 2014), body dissatisfaction (Salk & Engeln-Maddox, 2011), and disordered eating (Ousley, Cordero, White, 2008). Moreover, fat talk has been causally associated with low appearance related self-esteem (Engeln, Sladek, & Waldron, 2013), guilt (Salk & Engeln-Maddox, 2012), and body dissatisfaction (Stice, Maxfield, & Wells, 2003). In sum, fat talk is a well-established social phenomenon which many women report engaging in on a regular basis, however, it has also been associated with a number of maladaptive outcomes, suggesting that engaging in fat talk makes women feel worse about themselves. There are a number of theories that attempt to explain this paradox.

Theories of Fat Talk

Most research to date has focused on the negative correlates and outcomes associated with fat talk. These negative impacts are best explained by cognitive dissonance theory (Festinger, 1957) and self-perception theory (Bem, 1967). Cognitive dissonance theory (Festinger, 1957) holds that engaging in a behaviour that is incongruent with one's self-concept causes dissonance which is aversive. Consequently, an individual will change his or her self-concept to eliminate the aversive dissonance. In terms of fat talk, since fat talk is normative in Western societies a woman who is not dissatisfied with her body may feel pressured to engage in fat talk and, as a result, she may experience dissonance between the statement that she made and her self-concept. Cognitive dissonance theory would predict that she would subsequently shift

her self-concept and her feelings about her body to become more negative in order to eliminate the aversive experience of dissonance.

Similarly, self-perception theory (Bem, 1967) posits that individuals decide how they feel based upon their actions. Applying this theory to fat talk, after making self-deprecating comments about her body for various reasons (e.g., social norms), a woman would decide that she feels negatively about her body because she said so. Alternatively, even if she was dissatisfied with her body prior to making the comments, she may decide that she feels even more negatively about her body after engaging in fat talk. Thus, fat talk can both cause and exacerbate body dissatisfaction.

In sum, both cognitive dissonance theory (Festinger, 1957) and self-perception theory (Bem, 1967) can be used to explain the negative outcomes and correlates associated with fat talk. Both theories posit that making fat talk statements about oneself can change the way one views and feels about one's body. This makes the social norm of fat talk and the fact that the normative response is reciprocal in nature (i.e., "you're not fat; I'm fat") especially harmful. This leads to the question: if engaging in fat talk and responding to fat talk is harmful, then how did it become such a strong reciprocal norm for women in western society? Objectification theory (Fredrickson & Roberts, 1997) can provide an explanation for this.

Objectification theory (Fredrickson & Roberts, 1997) holds that society socializes women in Western societies to view themselves as objects that are to be evaluated by others. As such, women learn that their attractiveness is equivalent to their worth. This constant evaluation combined with the excessive importance placed upon physical attractiveness results in appearance anxiety. Due to the aversive nature of anxiety, women engage in a number of behaviours in an attempt to alleviate their anxiety. Fat talk can be conceptualized as one of these

behaviours. Thus, according to this theory, the fact that fat talk has become a social norm in Western society is a direct result of the objectification that women are subjected to. Objectification theory (Fredrickson & Roberts, 1997) also points to a possible adaptive reason for why woman engage in fat talk. It suggests that fat talk serves the purpose of anxiety reduction or avoidance. Displacement theory (Bruch, 1978) further elaborates upon the possible purpose served by fat talk in the context of a society which constantly objectifies women.

Displacement theory was initially posited by psychiatrist Hilde Bruch in her 1978 book on anorexia nervosa. Based on her clinical observations, Bruch posited that anorexia nervosa was caused by young women attempting to escape feelings of ineffectiveness and loss of control by restricting their caloric intake. As such, Bruch took the position that the weight loss that characterizes anorexia nervosa is a symptom of an individual's efforts to regulate negative affect. Specifically, displacement theory (Bruch, 1978) posits that women displace negative affect into their bodies in an attempt to make their feelings of distress more controllable (e.g., through dieting). This sense of control then makes these displaced feelings (e.g., anxiety, guilt) more tolerable and less threatening. Applied to fat talk, women may feel anxious because they are under constant evaluation based upon their appearance and may feel guilty when they do not live up to the societal ideal. When they experience these feelings, fat talk is a way in which they can displace them into their body which will make them more controllable, and consequently, more tolerable. For example, a woman who feels guilty after eating fattening food may proclaim "I feel so fat, I need to go on a diet" in an effort to make the feeling of guilt more controllable by displacing it into her body which she can then alter by dieting. As such, according to displacement theory (Bruch, 1978) fat talk serves an important negative affect relieving and control granting purpose for women. Consequently, if displacement theory (Bruch, 1978) holds

true, experiencing negative affect should lead women to engage in fat talk.

Displacement theory was initially thought to be specific to individuals with anorexia nervosa (Bruch, 1978), however, anecdotally it has been used in clinical setting to conceptualize and treat individuals with other eating disorders, and is now included as part of Enhanced Cognitive Behavioural Therapy for eating disorders (Fairburn, 2008), the gold-standard in transdiagnostic eating disorders treatment (Kass, Kolko, & Wilfley, 2013). There is also some evidence that the general population may engage in displacement. For example, undergraduate women who do not meet criteria for an eating disorder report "feeling fat" in their day-to-day lives and this feeling is associated with feeling more negatively about one's body after experiencing a failure, eating in response to emotional distress, and disordered eating (Striegel-Moore, McAvay, & Rodin, 1986). However, displacement theory has not yet been applied to fat talk and research that tests displacement theory on the general population is scarce.

The Factors that Lead to Fat Talk

Despite the association between fat talk and a number of negative outcomes, fat talk has been shown to be very common in Western societies. The fact that fat talk is so pervasive despite its negative consequences suggests that engaging in fat talk must serve a purpose or that fat talk must be reinforcing in some way. Displacement theory (Bruch, 1978) hypothesizes that fat talk may be reinforcing because it relieves negative affect and gives women a sense of control. As such, displacement theory (Bruch, 1978) predicts that experiencing negative affect would lead women to engage in fat talk. However, displacement theory (Bruch, 1978) has not been tested in the context of fat talk as research to date has focused on the outcomes and correlates of fat talk rather than attempting to uncover the factors that lead to it. As such, the current studies will constitute the first experimental investigation of the factors that lead to fat talk.

Guilt, Overeating, and Fat Talk

Shannon and Mills (2015) posited that women may engage in fat talk in an attempt to relieve guilt in situations in which they do not live up to the societal ideal of thinness. This hypothesis, which is based on objectification theory as well as displacement theory, has not yet been tested. Guilt has previously been investigated in relation to fat talk. Salk and Engeln-Maddox (2011) conducted a qualitative study with female undergraduate students to investigate the purpose of fat talk. In this study many participants reported that they engaged in fat talk to absolve the guilt they experienced after consuming high calorie foods. In another study by the same authors, Salk and Engeln-Maddox (2012) found that individuals who overheard two confederates engage in fat talk experienced more guilt and were more likely to engage in fat talk themselves. It is possible that it was the increased guilt that made the participants engage in fat talk, however, limitations of the study's experimental methodology did not allow for the examination of this important possibility.

Overeating or consuming high calorie foods is one way in which women may not live up to the ideal and it has previously been documented that women often engage in fat talk in situations in which food is consumed (Nichter, 2000). Indeed, experiencing guilt after eating appears to be common among young women. Steenhuis (2009) conducted a study in which she asked university women to keep a food diary for one week. Examination of the diaries indicated that the majority of participants regularly experienced feelings of guilt after eating. Similarly, Gonzalez and Vitousek (2004) found a relationship between the perceived "fatteningness" of a particular meal and feelings of guilt. These findings held for both women who did and did not identify as being on a diet. In line with this finding, Wansink, Cheney, and Chan (2003) surveyed male and female individuals of diverse ages in North America regarding their

consumption of "comfort food" and found that almost 30 percent of women in the sample reported feelings of guilt after eating pastries.

In sum, an overeating manipulation was selected for Study 1 due to previous research that linked overeating to guilt, and previous research that posited that experiencing guilt may lead to fat talk. As such, using displacement theory, it may be that feelings of guilt are especially prone to be displaced onto the body via fat talk. Consequently, guilt was the first emotion to be investigated.

Importance and Implications

The high prevalence of fat talk and the negative outcomes associated with it suggest that fat talk can pose risks to the health and well-being of young women. As such, there are a number of initiatives which aim to stop women from engaging in fat talk (e.g., Fat Talk Free Week®) and anti-fat talk components have been included in some eating disorder prevention programs (e.g., the *Reflections: Body Image Program® currently in use by Tri-Delta sororities throughout the United States*). If researchers can discern what factors lead to fat talk, it can strengthen fat talk and eating disorder prevention efforts by specifically targeting those factors.

The Present Research

Across three studies, the goal of the present research was to address three main questions. First, what factors lead to fat talk? Second, are the factors that lead to fat talk unique as compared to other types of self-disparaging talk? Third, are there individual differences in what leads women to engage in a fat talk? As such, these dissertation studies were designed to contribute to knowledge regarding the societal phenomenon of fat talk, as well as social psychology since there is a paucity of research concerning self-disparaging talk in general. Moreover, uncovering the factors that lead to fat talk is of clinical significance to both the

treatment and prevention of disordered eating so that eating disorder prevention efforts can address strategies for substitute behaviours.

All three studies recruited female undergraduate students aged 12-25. This population was used for convenience and because research has documented high levels of fat talk among young female undergraduate students (Salk & Engeln-Maddox, 2011). Men were not recruited as there is some evidence that their body-related talk tends to focus more on muscularity and is more situation specific than that of women (Sladek et al., 2014). As such, there was a concern that the anticipated fat talk measures would not be equally relatable to men and women due to their focus on weight and shape. Moreover, it is less likely that a displacing process is at work for men since their body-related talk is more situation specific.

The research questions posed in this dissertation are novel and contribute to the fields of clinical, health, and social psychology. These will be the first studies to examine the factors that lead to fat and to measure anticipated fat talk. Most fat talk research to date has been correlational and the experimental studies that have been published have focused exclusively on the impact of fat talk. Moreover, these studies will be the first to examine self-disparaging talk in general, a type of talk that has long been anecdotally deemed as important by mental health clinicians, but which has not been subject to empirical research. Furthermore, these studies will be the first to apply displacement theory to a nonclinical population.

Rationale for the Study Design

The experimental method was chosen based on a logical positivistic approach to science. It is based on the idea that psychological processes can be made observable and measurable, and this information can be verified by using the scientific method. It is also assumed that individuals are aware of and able to rate their behavioural intentions (i.e., anticipated fat talk and

unproductive talk), and that these ratings translated into real-word behaviour. Anticipated fat talk was chosen based upon the successful use of anticipated measures in other health psychology-related studies as well as ease of use. The use of confederates to provide participants with an opportunity to engage in real-world fat talk was also considered but was decided against due to concerns about potential confounds (e.g., the extended period of data collected would have necessitated the use of different confederates across studies, and demand characteristics). Throughout the dissertation null findings have been reported in the interest of transparency.

The Role of the Candidate

The candidate, with guidance from her research supervisor and dissertation committee, developed the experimental design for all three studies. She was also responsible for literature review, formulation of the research questions, formulation of hypotheses, selection of measures, submission of the studies for ethical review, recruitment of participants, data collection, data analysis, and the dissertation write-up.

Study 1

Research Goals

The first goal of Study 1 was to investigate whether feeling guilty about having eaten too much leads women to engage in fat talk. This was tested experimentally by examining whether participants in a food-related guilt condition rated themselves as more likely to initiate a fat talk conversation those in a control condition. The second goal of this research was to examine whether feeling guilty about having eaten too much leads women to uniquely engage in fat talk as opposed to self-disparaging talk in general. This was tested by examining whether participants in a food-related guilt condition rated themselves as more likely to initiate a fat talk

conversation as opposed to another type of self-disparaging conversation (i.e., unproductive talk).

Hypotheses

Based on displacement theory (Bruch, 1978), it was posited that participants in the food-related guilt condition would subsequently experience decreased body image, increased guilt, and increased negative mood as compared to participants in the control condition. Furthermore, participants in the food-related guilt condition would subsequently rate themselves as more likely to initiate a fat talk conversation, more likely to anticipate that initiating a fat talk conversation would improve their mood, and more likely to anticipate that initiating a fat talk conversation would improve their body image as compared to participants in the control condition. There would be no group differences in terms of likelihood of initiating an unproductive talk conversation or its anticipated impact on mood or body image.

Method

Participants

One hundred and twenty female undergraduate students aged 17-25 were recruited from the York University undergraduate research participant pool. The mean age of participants in this study was 19.08 years (*SD* = 1.64). Body Mass Index (BMI = kg/m^2) was calculated using self-reported height and weight because it was an online study. Previous research has shown that undergraduate women tend to under-report their weight (Polivy, Herman, Trottier & Sidhu, 2014). As such, a correction ($Corrected\ weight\ =\ e^{\left(\frac{\ln(self-reported\ weight)-.209}{.942}\right)}$) was made in order to account for this probable under-reporting of weight (Dutton & McLaren, 2014). The mean BMI before the correction was 22.39 (*SD* = 3.56). The mean BMI after the correction was applied was 23.19 (*SD* = 4.0, *range* = 16.53 – 34.22) which is in the normal weight range

(Centers for Disease Control, 2011). The most common ethnic category with which participants self-identified was Caucasian (31.6%) followed by Asian (29.9%), Middle Eastern (23.9%, and Black (12%). Three participants (2.6%) chose not to report their ethnicity. The most common self-reported place of origin was Canada (59.8%) followed by Asia (15.4%), and the Middle East (17.1%). 8.7% of participants chose not to respond. Participants who identified a place of origin other than Canada had been in Canada for a mean of 9.78 years (*SD* = 5.74). Participants received partial course credit for their participation.

Measures

Anticipated likelihood measures. Anticipated likelihood of initiating a fat talk conversation as well as anticipated likelihood of initiating an unproductive talk conversation and its anticipated impact on mood, guilt, and body image were gauged using visual analog scales (Appendices A and B). Visual analog scales are commonly used in body image research; their main advantage is that they are sensitive to small changes in states. Visual analog scales have also been shown to correlate with established measures of mood and body image (see Heinbeg & Thompson, 1995). Similar measures of anticipated engagement in a behaviour as well as one's anticipated emotional reaction to said behaviour (e.g., anticipated likelihood of vaccination and emotional reaction to vaccination; see Leder, Florack, & Keller, 2015) have been successfully used in other areas of health psychology research (e.g., anticipated sunscreen use; see Rasmussen & O'Connor, 2005).

Body image. State body image was assessed using the Body Image States Scale (BISS; Cash, Fleming, Alindogan, Steadman, & Whitehead, 2002; Appendix C). The scale consists of six items that ask participants to rate how they feel in the moment in terms of their physical appearance, body size and shape, weight, attractiveness, how they feel about their looks as

compared to how they usually feel, and how they feel they look as compared to an average person on a 9-point Likert-type scale. The BISS scores have demonstrated adequate convergent and construct validity in a sample of ethnically diverse university students (Cash et al. 2002). The Cronbach alpha for this study was .77. This measure was selected due to its ubiquitousness in the body image literature.

Guilt. State guilt was measured by the State Shame and Guilt Scale (SSGS; Marschall, Sanftner, & Tangney, 1994; Appendix D). This scale consists of 15 statements (e.g., I feel tension about something I have done) and asks respondents to indicate how they feel in the moment on a five point Likert scale ranging from *not feeling this way at all* to *feeling this way very strongly*. These statements load onto two subscales that measure shame and guilt respectively. Items loading onto the guilt subscale were used in the present study. The scale has demonstrated good internal consistency as well as convergent validity (Tangney & Dearing, 2002). The Cronbach alpha for this study was .80. This measure was selected due to its relevant content.

Mood. Mood was measured by the Positive and Negative Affect Schedule (PANAS; Watson, Clark & Tellegen, 1988; Appendix E). The scale consists of twenty words that describe positive (e.g., excited) and negative (e.g., afraid) emotions. It asks respondents to indicate the extent they currently feel each emotion on a five point Likert scale ranging from *very slightly or not at all* to *extremely*. Both divergent and convergent validity have been demonstrated for each subscale (Schmukle, Egloff, & Burns, 2002). The Cronbach alphas for this study were .90 for both the positive and negative subscales. This measure was selected due to its prevalence in the literature as a measure of subtle state changes in mood.

Demographic information. A brief demographics questionnaire to document height, weight, age, ethnicity, country of origin, and years spent in Canada (Appendix F).

Procedure

Participants were provided with a link to the study which was hosted on Qualtrics ®. After giving informed consent (Appendix G), participants were randomly assigned via Qualtrics software to either the food-related guilt induction (Appendix H) or the neutral induction (control condition; Appendix I) and underwent the respective induction procedure for 10 minutes. These emotion induction procedures were based upon those successfully used in previous experimental studies related to body image (e.g., Coelho, Carter, McFarlane, & Polivy, 2008; McFarlane, Urbszat, & Olmsted, 2011). Moreover, imaginal manipulations have been successfully used in other areas of social psychology research (e.g., research concerning imagined transgressions and forgiveness; see Struthers, Eaton, Santelli, Uchiyama, & Shirvani, 2008). Furthermore, online text based inductions have been successful at inducing various emotional states (Verheyen & Göritz, 2009) and were appropriate for the present study. Following the manipulation, participants completed a set of questionnaires consisting of the anticipated likelihood of initiating a fat talk conversation measure, the anticipated likelihood of initiating an unproductive conversation measure, the Body Image States Scale, the State Shame and Guilt Scale, the Positive and Negative Affect Schedule, and the demographics questionnaire. Upon completion, in order to negate any possible adverse consequences of the manipulation, participants who underwent the food-related guilt induction then underwent the neutral (control) induction, and all participants were provided with an article concerning fat talk and ways to improve one's body image (Appendix J). The study was reviewed and approved by the York University Office of Research Ethics (Appendix K).

Data Analysis Plan

All continuous variables were examined for normality and outliers. Three participants were excluded from analyses due to evidence of patterned responding as measured by visual inspection of the data. Outliers were replaced with the most extreme score within 3.29 standard deviations (Cosineau & Charlie, 2010) which resulted in the following changes: a BMI of 39.70 was changed to 34.22. A number of skewed variables were present in the data and were corrected using log transformations (Osborn, 2008). This affected the following variables: likelihood that fat talk would improve mood visual analog scale (non-transformed coefficient = 1.09; transformed coefficient =.89), and likelihood that unproductive talk would improve body image (non-transformed coefficient = 1.15; transformed coefficient =.83). Missing data were minimal (i.e., less than five percent) and were found to be missing completely at random, ($x^2(88) = 70.99$ $p = .907$) so they were not replaced (Barladi & Enders, 2010). The main hypotheses regarding group differences by experimental condition were investigated using a series of ANOVAs (experimental condition x dependent variable). A manipulation check was performed using an ANOVA model (guilt x body image dissatisfaction x experimental condition). ANOVA models were used rather than MANOVA models due to multicollinearity (Huberty & Morris, 1989). In order to minimize the probably of Type 1 error, an alpha level of .05 was used for all significance tests. This method was chosen so as to avoid reducing sample size and statistical power, while preserving the meaningfulness of the data.

Results

Descriptive Statistics

Table 1 displays the means and standard deviations for all variables of interest by experimental condition. The current sample was similar to other undergraduate female samples at this and other universities.

Exploratory analyses were conducted to probe for a relationship between likelihood of initiating a fat talk conversation and demographic and other variables. No significant correlations were found between fat talk likelihood and BMI, $r(114) = .08$, $p = .36$, age $r(116) = -.09$, $p = .33$, or years in Canada, $r(116) = -.09$, $p = .56$. No significant between-condition differences were found in terms of ethnicity, $F(3,110) = 1.2$, $p = 3.12$, $\eta^2 = .04$, or country of origin, $F(3,116) = .35$, $p = .79$, $\eta^2 = .02$.

Table 1

Means (and standard deviations) of all variables of interest by condition

Variable	Food-Related Guilt Condition $n = 61$	Neutral Control Condition $n = 56$
Likelihood of initiating a fat talk conversation	43.30 (32.00)	26.41 (27.35)
Likelihood fat talk would improve mood	25.22 (26.44)	17.31 (22.66)
Likelihood fat talk would improve body image	24.79 (26.58)	22.00 (25.01)
Likelihood of initiating an unproductive talk conversation	53.39 (34.43)	50.93 (31.67)
Likelihood unproductive talk would improve mood	31.72 (26.51)	29.05 (27.11)
Likelihood unproductive talk would improve body image	47.56 (35.20)	44.73 (35.80)
Body Image	30.26 (5.38)	27.75 (5.10)
Guilt	11.48 (4.69)	11.98 (4.87)
Positive Mood	29.44 (8.55)	29.27 (8.20)
Negative Mood	20.21 (8.68)	20.46 (7.66)

Effects of Experimental Condition

The randomization procedure resulted in equivalent groups in terms of BMI, $F(1,113) = .01$, $p = .94$, $\eta^2 < .001$. Furthermore, as noted above, BMI was not correlated with fat talk likelihood. Therefore, no adjustments were made to control for BMI.

The manipulation check indicated participants in the food-related guilt condition had significantly lower state body image as compared to participants in the control condition, $F(1,115) = 6.68$, $p = .01$, $\eta^2 = .06$. However, the groups were not significantly different in terms of post-manipulation guilt, $F(1,115) = .33$, $p = .57$ $\eta^2 = .01$, or negative affect, $F(1,115) = .03$, $p = .87$, $\eta^2 < .001$.

There were significant main effects of experimental condition on anticipated likelihood of initiating a fat talk conversation, $F(1,116) = 7.02$, $p = .01$, $\eta^2 = .07$, and the anticipated likelihood that initiating a fat talk conversation would improve their mood, $F(1,116) = 5.33$, $p = .03$, $\eta^2 = .09$, such that participants in the food-related guilt condition were more likely to anticipate initiating a fat talk conversation, and were more likely to anticipate that initiating a fat talk conversation would improve their mood as compared to participants in the control condition. However, no other significant differences between experimental conditions were found in terms of other dependent variables of interest: anticipated likelihood that initiating a fat talk conversation would improve body image, $F(1,116) = .34$, $p = .56$, $\eta^2 < .01$, anticipated likelihood of initiating an unproductive talk conversation, $F(1,116) = .16$, $p = .69$, $\eta^2 < .001$, anticipated likelihood that initiating an unproductive talk conversation would improve their mood, $F(1,116) = .29$, $p = .59$, $\eta^2 = .01$, or body image, $F(1,116) = .40$, $p = .53$, $\eta^2 = .01$.

Discussion

Partial support was found for the hypotheses. Participants in the food-related guilt condition, who had just ruminated about overeating, rated themselves as more likely to initiate a fat talk conversation, and felt that initiating a fat talk conversation would be more likely to improve their mood as compared to participants in the control condition, who had just ruminated about a book or movie they had recently read or seen.

However, the experimental manipulation was also intended to make participants feel guilty in general, but there was no evidence of that. Participants in the food-related guilt condition did report feeling worse about their bodies which makes sense if they believe that overeating leads to weight gain. Participants in the guilt condition had lower state body image but did not experience more guilt or negative mood as compared to participants in the control condition. As such, the results indicate that undergraduate women are more likely to anticipate initiating a fat talk conversation and anticipate that initiating such a conversation will improve their mood after undergoing an induction in which they think about eating fattening food and, consequently, feel bad about their bodies. Moreover, these impacts seemed to be unique to fat talk rather than general self-disparaging comments. These results provide preliminary support for displacement theory in fat talk. Displacement theory (Bruch, 1978) holds women displace negative affect into their bodies in an attempt to regulate it by making the distress more controllable. This sense of control then makes the displaced negative affect less intense and, thus, more tolerable. It can be argued that the women in the study who were manipulated to feel bad about their bodies anticipated using fat talk to regulate this negative affect. In order to further test whether displacement is occurring when women anticipate their likelihood of initiating a fat talk conversation, non-food related emotions must also be tested. The food-related guilt manipulation did not result in greater feelings of guilt as measured by the State Shame and Guilt Scale (Marschall et al., 1994) but it did result in lower state body image. It may be that the type of food-related guilt that the manipulation induced is not captured well by traditional measures of guilt which have items that focus on interpersonal guilt (e.g., "I feel like apologizing") and is better captured by body image measures (e.g., "I feel dissatisfied with my body weight and shape" [due to food-related guilt from overeating]). It is also possible that some

participants did not experience guilt as they were unable to relate to the concept of experiencing guilt after eating certain foods and, thus, the experimental manipulation did not impact them. Indeed, although Steenhuis (2009) found that the majority of undergraduate women in her study reported experiencing food-related guilt, a small percentage did not.

In sum, Study 1 demonstrated that thinking about having overeaten makes women feel worse about their bodies and makes them more likely to anticipate initiating a fat talk conversation and more likely to believe that initiating a fat talk conversation will improve their mood. These findings were unique to fat talk as opposed to other self-disparaging talk (i.e., unproductive talk). Study 2 was designed to explore whether increased fat talk is unique to food-related rumination and body image distress or whether it generalizes to negative affect that does not concern food consumption or body image. Individual differences in anticipated fat talk likelihood also require further research as there was no relationship between likelihood of initiating a fat talk conversation and any of the demographic variables (i.e., BMI, age. years in Canada) in Study 1.

Study 2

Displacement theory, applied to fat talk, holds that experiencing any type of negative affect results in increased likelihood of fat talk and that this affect does not have to be specifically related to one's food consumption and body image (Bruch, 1978). Consequently, in Study 2 I sought to replicate and extend the findings of Study 1 by adding an academic-related guilt induction in addition to the food-related guilt induction and a neutral induction control group in order to further delineate displacement theory in relation to fat talk. Moreover, a possible alternative explanation for the findings in Study 1 was that individual difference variables were responsible for the increased likelihood of fat talk among participants in the food-

related guilt condition. As such, Study 2 sought to explore individual difference variables as potential predictors of anticipated fat talk likelihood: dietary restraint, and emotion regulation.

Dietary Restraint

Trait dietary restraint is the extent to which individuals are concerned with their weight and shape, and seek to control their weight and shape by dieting (Herman & Polivy, 1980). However, when measured by the Revised Restraint Scale (Herman & Polivy, 1980) as is used in the current study, trait dietary restraint is more reflective of chronic failed efforts at dieting marked by periods of restriction followed by periods of disinhibited eating (Heatherton, Polivy, & Herman, 1991). This ultimately results in weight fluctuations (i.e., colloquially known as yo-yo dieting) as opposed to the sustained weight loss that restrained eaters desire (Heatherton et al., 1991). A review by Mills, Weinheimer, Polivy, and Herman (2018) found that this type of chronic unsuccessful dieting has been associated with body dissatisfaction, depression, anxiety, and heightened emotional reactivity.

Displacement theory has been applied to restrained eaters in previous experimental research. Coelho and colleagues (2008) found that restrained eaters reported increased perceived weight gain after undergoing an anxiety induction as compared to restrained eaters who underwent a neutral induction. As such, it appears as though restrained eaters may be prone to displacing emotions onto their body. It is not yet known if this displacement process would result in an increased likelihood of fat talk. Since restrained eaters are a subset of the population that is especially focused on weight and shape it stands to reason that they may be have a different relationship with fat talk as compared to unrestrained eaters. Previous research (e.g., Compeau and Ambwani, 2013) has also demonstrated that exposure to fat talk differentially impacts

individuals who score highly on trait dietary restraint. It may be that the factors that lead to fat talk differentially impact restrained and unrestrained eaters.

Emotion Regulation

Emotion regulation refers to an individual's ability to manage his or her emotional experience. There are individual differences in how people habitually regulate their emotions. This will be the first study to explore the relationship between emotion regulation and fat talk. The current study will consider the habitual use of expressive suppression as an emotion regulation strategy. Expressive suppression involves inhibiting and avoiding one's emotional experience (Gross & Levenson, 1993). Given the fact that displacement theory posits that fat talk serves an important negative affect relieving function, the factors that lead to fat talk may differentially impact individuals who differ in their habitual use of expressive suppression.

The goals of Study 2 kept with the main themes for the dissertation: 1) What factors lead to fat talk? 2) Are the factors that lead to fat talk unique as compared to other types of self-disparaging talk? And 3) Are there individual differences in what leads women to initiate a fat talk conversation?

Hypotheses

It was predicted that participants in the academic-related guilt condition would subsequently experience increased negative mood and guilt as compared to participants in the food-related guilt and control conditions. Moreover, participants in the academic-related guilt condition would subsequently rate themselves as more likely to initiate a fat talk conversation, and more likely to anticipate that initiating a fat talk conversation would improve their mood as compared to participants in the control condition. There would be no increased likelihood of initiating an unproductive talk conversation or differences in its anticipated impact on mood or

body image. This hypothesis was based upon displacement theory (Bruch, 1978), as it was anticipated that participants who feel guilty will displace this guilt onto their bodies, thereby making it more controllable and less aversive, by anticipating initiating a fat talk conversation when given the opportunity. It was anticipated that this displacement process will be unique to fat talk rather than self-disparaging talk in general.

In terms of food-related guilt, the findings from Study 1 were expected to replicate such that participants in the food-related guilt condition would subsequently experience decreased body image as compared to participants in the academic-related guilt and control conditions. Furthermore, as per the Study 1 results and displacement theory (Bruch, 1978), individuals in the food-related guilt condition would subsequently rate themselves as more likely to initiate a fat talk conversation, and more likely to anticipate that initiating a fat talk conversation would improve their body image as compared to participants in the control condition. There would be no group differences in terms of likelihood of initiating an unproductive talk conversation or its anticipated impact on mood or body image.

Furthermore, it was predicted that restrained eaters would be more likely to initiate a fat talk conversation, more likely to anticipate that initiating in a fat talk conversation would improve their mood, and more likely to anticipate that engaging in a fat talk conversation would improve their body image as compared to unrestrained eaters. There would be no group differences in terms of likelihood of initiating an unproductive talk conversation or its anticipated impact on mood or body image. This was predicted because restrained eaters are expected to be more likely to use fat talk as a way to cope with decreased body image brought about as a result of ruminating over having eaten too much (Compeau & Ambwani, 2013).

Moreover, expressive suppression was expected to predict anticipated likelihood of initiating a fat talk conversation such that participants who scored higher on expressive suppression were expected to report greater anticipated likelihood of fat talk. This was hypothesized because displacement theory (Bruch, 1978) predicts that individuals who routinely attempt to suppress negative emotions may be especially prone to displacing negative affect onto their bodies as an emotion regulation strategy.

Method

Participants

One hundred and ninety-three female undergraduate students aged 17-25 were recruited from the York University undergraduate research participant pool. In keeping with Study 1, this population was sampled because research has documented high levels of fat talk among young undergraduate women (Salk & Engeln-Maddox, 2011). The mean age of participants in this study was 20.06 (*SD* = 1.81). BMI was calculated using self-reported height and weight with the addition of the same weight correction (see Dutton & McLaren, 2014) as was used in Study 1 to account for the previously documented tendency for undergraduate women to under-report their weight (Polivy et al., 2014). The mean BMI before the correction was 23.69 (*SD* = 4.41), and the mean BMI after the correction was applied was 24.57 (*SD* = 5.13; *range* = 16.46 – 39.59) which is in the normal weight range (Centers for Disease Control, 2011). The most common ethnic category with which participants self-identified was Caucasian (27.5%) followed by Asian (25.3%), Middle Eastern (23.8%), Black (13%), and Other (9.3%). Two participants (1%) chose not to respond. The most common self-reported place of origin was Canada (57.5%) followed by the Middle East (20.6%), and Asia (8.3%). Participants who identified a place of origin other than Canada had been in Canada a mean of 10.23 years (*SD* = 6.46). Participants received partial course credit for their participation.

Measures

Anticipated likelihood of fat talk and unproductive talk were measured using the same visual analog measures as Study 1. As in Study 1, body image was assessed using the BISS (Cash et al., 2002), guilt was measured using the SSGS (Marschall et al., 1994), and mood was measured using the positive and negative affect subscales of the PANAS (Watson et al., 1988). The Chronbach alphas for the present study were .72, .77, .89, and .89, respectively. In addition, the same demographics information was collected.

In Study 2, I added two new measures. Trait dietary restraint was measured using the Revised Restraint Scale (RRS; Herman & Polivy, 1980; Appendix L), which captures typical dieting behaviours, including repeated attempts at weight loss through caloric restriction, weight fluctuations, and proneness to overeating. This scale is comprised of ten questions regarding weight fluctuation (e.g., “In a typical week, how much does your weight fluctuate?”), attitudes towards eating (e.g., “Do you eat sensibly in front of others and splurge alone?”), and attitudes towards dieting (e.g., “How often are you dieting?”). Scores range from 0 to 40. Higher scores indicate a stronger tendency to restrain one's eating. As is customary in the restraint literature, a score of 15 or above indicates a person who chronically restrains his or her eating. This scale’s scores have demonstrated good test–retest reliability and construct validity (Allison, Kalinsky & Gorman, 1992). The Cronbach alpha for this study was .80. This measure was chosen for its relevant content.

Emotion regulation was assessed using the expressive suppression subscale of the Emotion Regulation Questionnaire (ERQ; Goss & John, 2003; Appendix M). The scale consists of 5 items which presents participants with statements about how they regulate and express their emotions and ask them to rate their level of agreement on a 7 point Likert-type scale with

anchors of *strongly disagree* and *strongly agree*. The ERQ scores have demonstrated good internal consistency (Melka, Lancaster, Bryant, & Rodriguez, 2011) and construct validity (Ioannidis & Siegling, 2015). The Cronbach alpha for this study was .86. This measure was chosen for its prevalence in the emotion regulation literature.

Procedure

Participants who signed up for the study were provided with a link to the study which was hosted on Qualtrics ®. After giving informed consent, participants were randomly assigned to either the academic- related guilt induction (Appendix N), food-related guilt induction, or the neutral (control) induction, and underwent the respective induction procedure for 10 minutes. Following the induction, participants completed a set of questionnaires consisting of the anticipated likelihood of initiating a fat talk conversation measure, the anticipated likelihood of initiating an unproductive conversation measure, the BISS, the SSGS, the PANAS, the RRS, the ERQ, and the demographics questionnaire. Upon completion, in order to negate any possible adverse consequences of the manipulation, participants who underwent the academic-related guilt induction or the food-related guilt induction then underwent the neutral (control) induction, and all participants were provided with an article concerning fat talk and ways to improve one's body image. The study was reviewed and approved by the York University Office of Research Ethics (Appendix O).

Data Analysis Plan

All continuous variables were examined for normality and outliers. Outliers were replaced with the most extreme score within 3.29 standard deviations (Cosineau & Charlie, 2010). This resulted in the following changes: an expressive suppression score was changed from 35 to 28, and a BMI of 44.38 was changed to 39.59. Missing data were minimal (i.e., less than

five percent) and were found to be missing completely at random, ($x^2(501) = 531.77$ $p = .165$). The main hypotheses regarding group differences by experimental condition as well dietary restraint were investigated using a series of ANOVAs (experimental condition x restraint status). Participants were also classified as restrained or unrestrained eaters according to their total scores on the Revised Restraint Scale. As per convention and previous research, a score of 15 was used as the cut-off for a restrained eater and scores of 14 and below are classified as unrestrained eaters (e.g., Mills & Miller, 2007). Using this cut-off 40.93% of participants were classified as restrained eaters. Expressive suppression was examined using simple linear regression. A manipulation check was performed using an ANOVA model (guilt x body image dissatisfaction x experimental condition).

Results

Descriptive Statistics

Tables 2 and 3 display the means and standard deviations for all variables of interest by experimental condition, and restraint status. The current sample was similar to other undergraduate female samples at this and other universities.

Table 2
Means (and standard deviations) of all variables of interest by condition

Variable	Food-related Guilt Condition *n* = 68	Academic Guilt Condition *n* = 58	Neutral Control Condition *n* = 67
Likelihood of initiating a fat talk conversation	49.87 (31.39)	36.89 (34.73)	38.28 (30.46)
Likelihood fat talk would improve mood	22.35 (25.10)	19.79 (24.66)	26.07 (28.78)
Likelihood fat talk would improve body image	27.65 (27.85)	26.48 (30.17)	29.01 (29.31)
Likelihood of initiating an unproductive talk conversation	60.91 (32.69)	52.69 (31.73)	55.72 (29.11)
Likelihood unproductive talk would	26.60 (25.56)	28.34 (24.18)	33.07 (28.17)

improve mood			
Likelihood unproductive talk would improve body image	15.97 (22.20)	20.91 (24.10)	22.76 (28.09)
Body Image	34.54 (9.62)	30.02 (9.85)	33.21 (8.44)
Guilt	13.51 (4.57)	11.60 (4.46)	11.64 (4.76)
Positive Mood	25.71 (7.87)	28.19 (9.19)	27.52 (8.25)
Negative Mood	24.15 (9.08)	21.57 (9.30)	22.91 (9.13)

Table 3

Means (and standard deviations) for all variables of interest by restraint status

Variable	Restrained Eaters *n* = 79	Unrestrained Eaters *n* = 114
Likelihood of initiating a fat talk conversation	57.40 (31.38)	31.52 (28.98)
Likelihood fat talk would improve mood	26.78 (26.74)	20.17 (25.76)
Likelihood fat talk would improve body image	27.47 (28.05)	20.17 (25.76)
Likelihood of initiating an unproductive talk conversation	61.52 (31.46)	53.25 (30.73)
Likelihood unproductive talk would improve mood	31.13 (26.57)	28.16 (25.85)
Likelihood unproductive talk would improve body image	18.62 (24.30)	20.64 (25.52)
Body Image	36.44 (8.87)	28.38 (8.48)
Guilt	13.81 (4.79)	11.24 (4.30)
Positive Mood	25.08 (7.55)	28.47 (8.77)
Negative Mood	25.54 (9.33)	21.12 (8.66)

Effects of Experimental Condition

The randomization procedure resulted in equivalent groups in terms of age, $F(2,189) = 1.18$, $p = .31$, $\eta^2 = .01$, BMI, $F(2,185) = .63$, $p = .54$, $\eta^2 = .01$, or expressive suppression, $F(2,190) = .24$, $p = .79$, $\eta^2 < .01$. There were significant group differences in terms of trait dietary restraint $F(2,189) = 4.88$, $p = .01$, $\eta^2 = .05$. Tukey post-hoc analyses indicated that participants in the food-related guilt condition ($M = 15$, $SD = 6.43$) had significantly higher total restraint scores as compared to participants in the neutral control condition ($M = 11.7$, $SD = 6.61$) at $p < .05$. A chi-square goodness of fit test found that the food-related guilt condition had significantly more

restrained eaters (n = 37) as compared to the control condition (n = 23), $X^2(2, N = 193) = 7.92$, p =.02.

The manipulation check indicated that the groups were not significantly different in terms of negative affect, $F(2,190) = 1.24$, p =.29, η^2 =.01. However, significant differences were detected in terms of body image $F(2,190) = 4.99$, p =.01 , $\eta^2 = .05$, and guilt $F(2,190) = 3.71$, p =.03 , $\eta^2 = .04$. Tukey post-hoc analyses indicated that participants in the food-related guilt condition (M = 34.37, SD = 9.59) had significantly lower body image as compared to participants in the academic-related guilt (M = 30.26, SD = 9.31) and neutral control (M = 30.44, SD = 9.45) conditions at p <.05. Moreover, participants in the food-related guilt condition (M = 13.43, SD = 4.55) had significantly higher guilt as compared to participants in academic-related guilt (M = 11.6, SD = 4.46, p = 04) and neutral control (M = 11.75, SD = 4.81) conditions at p <.05.

ANOVA analyses revealed a significant main effect of experimental condition on likelihood of initiating a fat talk conversation, $F(2,190) = 3.2$, p =.04 η^2 = .03. Tukey post-hoc analyses indicated that participants in the food-related guilt condition (M = 49.87, SD = 31.39) endorsed a greater likelihood of initiating a fat talk conversation as compared to participants in the academic-related guilt (M = 36.89, SD = 34.73) and neutral control (M = 38.28, SD = 30.46) conditions (p <.05). No significant main effects were found for likelihood of initiating an unproductive talk conversation, $F(2,190) = 1.13$, p =.33 η^2 =.01, anticipated likelihood that initiating a fat talk conversation would improve one's body image, $F(2,190) = .12$, p =.89, η^2 <.001, or mood, $F(2,190) = .91$, p =.41, η^2 = .01, and anticipated likelihood that initiating an unproductive talk conversation would improve one's body image, $F(2,190) = 1.33$, p =.27, η^2 =.02, or mood, $F(2,190)$ =1.1, p =.33, η^2 =.01.

Group Differences by Restraint Status

There were significant main effects of restraint status on anticipated likelihood of initiating a fat talk conversation, $F(1,190) = 34.15$, $p < .001$, $\eta^2 = .15$, anticipated likelihood of initiating an unproductive talk conversation, $F(1,193) = 4.01$, $p = .04$, $\eta^2 = .02$, body image, $F(1,189) = 44.30$, $p < .001$, $\eta^2 = .175$,and guilt, $F(1,189) = 11.53$, $p < .01$, $\eta^2 = .07$ such that restrained eaters reported a higher anticipated likelihood of initiating a fat talk conversation, a higher anticipated likelihood of initiating an unproductive talk conversation worse body image, and more guilt as compared to unrestrained eaters. No significant main effects were found in terms of anticipated likelihood that initiating a fat talk conversation would improve one's mood, $F(1,189) = 2.10$, $p = .27$, $\eta^2 = .02$, or body image, $F(1,189) = .15$, $p = .90$, $\eta^2 < .001$, and anticipated likelihood that initiating an unproductive talk conversation would improve one's mood, $F(1,189) = .83$, $p = .36$, $\eta^2 = .01$, or body image $F(1,189) = .43$, $p = .51$, $\eta^2 < .001$. No interaction effect between dietary restraint status and experimental condition was found on any of the variables of interest: anticipated likelihood of initiating a fat talk conversation, $F(2,184) = .37$, $p = .69$, $\eta^2 < .01$, anticipated likelihood of initiating an unproductive talk conversation, $F(2,187) = .16$, $p = .85$, $\eta^2 < .01$, body image, $F(2,187) = 1.02$, $p = .36$, $\eta^2 = .01$, anticipated likelihood that initiating a fat talk conversation would improve one's mood, $F(2,187) = .98$, $p = .38$, $\eta^2 = .01$, or body image, $F(2,187) = .27$, $p = .77$, $\eta^2 < .01$, anticipated likelihood that initiating an unproductive talk conversation would improve one's mood, $F(2,187) = 2.25$, $p = .11$, $\eta^2 = .02$, or body image, $F(2,187) = 1.26$, $p = .29$, $\eta^2 = .01$, guilt, $F(2,187) = .02$, $p = .99$, $\eta^2 < .01$.

Regression Analysis

Simple linear regression was used to test whether expressive suppression predicted fat talk likelihood. Expressive suppression did not significantly predict fat talk likelihood, $R^2 = .01$,

$F(1,188) = 2.33$, $p = .13$, and there was no significant interaction between expressive suppression and experimental condition in terms of predicting fat talk likelihood, $R^2 = .06$, $F(1,188) = .75$, $p = .39$.

Discussion

Study 2 sought to replicate and extend Study 1 by adding a new experimental condition (i.e., academic-related guilt) and investigating possible predictors of anticipated fat talk likelihood (i.e., trait dietary restraint and expressive suppression). Partial support was found for the study's hypotheses. Participants in the food-related guilt condition, who had ruminated about having overeaten, felt worse about their bodies than did participants in the academic-related guilt condition, who had ruminated about a situation in which they felt guilty for something they have done in an academic setting, and participants in the control condition, who had ruminated about a book or move they had recently read or seen. Participants in the food-related guilt condition also endorsed greater anticipated likelihood of engaging in a fat talk conversation as compared to participants in the control condition. This was unique to fat talk rather than self-disparaging talk in general as there was no corresponding increase in likelihood of initiating an unproductive talk conversation. As such, similarly to Study 1, women who felt bad about their bodies as a result of having imagined a scenario in which they had overeaten were more likely to anticipate initiating a fat talk conversation.

Currently, it appears as though increased fat talk likelihood may be unique to having imagined a scenario in which one had overeaten or experiencing decreased body image as participants in the academic-related guilt condition did not endorse greater anticipated likelihood of engaging in a fat talk conversation as compared to participants in the control condition. This was an important extension of Study 1 in order to examine whether any type of guilt or negative

feelings result in fat talk. However, the academic-related guilt manipulation did not function exactly as intended as participants did not report increased feelings of guilt post-manipulation. This raises two possibilities: 1) The manipulation impacted participants in a way that was not captured well by the measures of mood and guilt used in the study. Or 2) The manipulation failed to significantly impact participants. In terms of the first possibility, the study used a general measure of guilt (i.e., the State Shame and Guilt Scale) as there was no empirically validated measure of academic-related guilt available. It is possible that this scale did not capture academic-related guilt well. However, this is unlikely as other studies have induced guilt using academic-related vignettes and this guilt was captured by the State Shame and Guilt Scale (see Cryder, Springer, & Carey, 2012). The second possibility, that the manipulation was not impactful enough to result in statistically significant changes on our chosen measures, is perhaps more likely. Academic-related guilt was chosen for its relatability to participants who were all undergraduate students. This anticipated relatability was determined by a research group which consisted of graduate students and a professor. It may be that academic-related guilt is more impactful or relatable to professors and graduate students as compared to undergraduate students. Indeed, academic-related guilt is a phenomenon that has almost exclusively been studied in professors and graduate students as opposed to undergraduate students (e.g., Lobo, 2015; Pychyl & Little, 1998; Vostal, 2015).

Moreover, the randomization procedure for assigning participants to experimental conditions may not have been entirely successful. The food-related guilt condition had significantly more restrained eaters as compared to the control condition. This discrepancy can be attributed to the manner in which the online survey software (i.e., Qualtrics) randomizes conditions in combination with the tendency for restrained eaters to be more attentive to stimuli

related to food, weight, and shape (Hollitt, Kemps, Tiggemann, Smeets, & Mills, 2010). The study was designed to be completed online in one sitting and took approximately one hour. These instructions were clearly conveyed to participants in the online recruitment information. As such, participants were not able to save their progress; if a participant started the study but was unable to complete it she had to start over and when she accessed the study again she may have been randomly assigned to a different experimental condition. Partial response data was not saved and it is unknown how many participants were unable to complete the study in one sitting and had to start over. Given restrained eaters' attentional bias towards food-related stimuli, restrained eaters may have been more likely to complete the study if the first vignette they were presented with was food-related as opposed to a vignette concerning a more neutral topic. This would also explain the difference in sample size between conditions (i.e., the food-related guilt condition has more participants than the control and academic-related guilt conditions). It should also be noted that, since restraint was measured after the experimental manipulation, it is possible that the manipulation influenced participant's responses on the Revised Restraint Scale (Herman & Polivy, 1980); however, since the Revised Restraint Scale (Herman & Polivy, 1980) is intended to be a stable measure of trait dietary restraint that has demonstrated good reliability among samples of young women (Allison et al, 1992), this is unlikely.

Nevertheless, the finding that thinking about having overeaten renders one more likely to anticipate initiating a fat talk conversation whereas thinking about a book or movie (control condition) or thinking about a situation in which one has felt guilty about something she has done in an academic setting (academic-related guilt condition) do not is interesting and consistent with Study 1.

This study included a measure of dietary restraint in order to investigate whether it moderates the effect of food-related guilt on likelihood of fat talk. In terms of trait dietary restraint, restrained eaters felt worse about their bodies, felt more guilty, and endorsed a greater anticipated likelihood of engaging in both fat talk as well as unproductive talk regardless of experimental condition. Restrained eaters are a subset of women who are especially concerned about weight and shape (Herman & Polivy, 1980). They are at increased risk for disordered eating (Delinsky & Terence, 2008), and according to these findings, they endorse an increased likelihood of initiating self-disparaging conversations. It is possible that the increased likelihood of fat talk is a manifestation of restrained eaters heightened concerns about weight and shape. However, since restrained eaters endorse a greater likelihood of both unproductive talk and fat talk perhaps a more likely possibility is that restrained eaters have an increased likelihood of engaging in different forms of self-disparaging talk. A possible motive could be to seek reassurance from others. More research is needed to untangle the factors that lead to anticipated fat talk in restrained eaters.

Expressive suppression, however, did not predict likelihood of initiating a fat talk conversation. As such, it appears as though individuals who tend to suppress their emotions are not more likely to fat talk. It follows from displacement theory that an individual's habitual style of emotional processing may make one more or less likely to displace negative affect onto his or her body. If fat talk is the result of the process of displacement then it stands to reason that emotional processing style may render one more or less likely to engage in fat talk. As such, although expressive suppression was not a significant predictor of anticipated fat talk, other measures of emotional processing warrant further exploration as potential predictors.

In sum, in Study 2 I found that individuals who were asked to think about a situation in which they have overeaten experienced decreased body image and reported increased likelihood of initiating a fat talk conversation as compared to individuals who were asked to think about a situation in which they felt guilty in an academic setting as well as individuals who were asked to think about a neutral non-eating or guilt related topic. Moreover, restrained eaters endorsed an increased likelihood of initiating both fat talk and unproductive talk conversations across all imagined scenarios. However, it is currently unknown whether this process is generalized to include negative affect that is not food or body related. Further research is needed to discern whether feeling bad about one's body from thinking about having overeaten uniquely predicts anticipated fat talk or whether other emotions also lead to increased anticipated fat talk which is what would be expected if fat talk truly reflects displacement.

Study 3

Feeling bad about one's body after imagining a scenario in which one has overeaten has consistently resulted in a subsequent self-reported anticipated increased likelihood of initiating a fat talk conversation in both Study 1 and Study 2. If a displacement process is at work then all negative affect should lead to such an increase. However, the results of Study 2 indicated that this might not be the case as thinking about a scenario in which one experienced academic rather than food-related guilt did not result in a subsequent increase in fat talk likelihood. However, academic guilt was difficult to elicit. As such, Study 3 sought to further test displacement theory (Bruch, 1978) in relation to fat talk by investigating whether a different negative emotion - sadness - leads to an increase in fat talk likelihood.

Sadness was selected because of previous research that linked the inhibited expression of negative emotions (i.e., unexpressed hostility and sadness) with negative feelings and thoughts

about one's body (e.g., Espeset, Gulliksen, Nordbø, Skårderud, & Holte, 2012; Geller, Cockell, & Goldner, 2000) as well as increased feelings of "fatness" (Forbush & Watson, 2006). There is also previous research that linked fat talk with feelings of depression (e.g., Rudiger and Winstead, 2013; Arroyo and Harwood 2012). Hostility was also considered but sadness was selected due to ethical considerations as well as the availability of a well-validated induction (i.e., the Velten Mood Statements).

Moreover, Study 2 showed that restrained eaters appear to be more likely to engage in self-disparaging talk across situations. However, both unrestrained and restrained eaters showed a tendency toward fat talk after experiencing food-related guilt. If there is a displacement process behind initiating fat talk conversations, it stands to reason that there may be other traits that may uniquely predict fat talk (i.e., emotion-related traits such as alexithymia). Moreover, other theories of fat talk have been posited and warrant acknowledgement. Other researchers (e.g., Greenhalgh, 2015) have recently posited that fat talk reflects negative attitudes towards individuals who are overweight or obese. As such, the present study investigated anti-fat attitudes as a possible predictor of fat talk likelihood. In sum, Study 3 sought to replicate the restraint findings of Study 2 as well as extend these findings by examining non-eating-related traits as potential predictors of fat talk likelihood.

Alexithymia

Alexithymia refers to difficulty identifying and describing one's emotions. Due to these difficulties individuals who are high in alexithymia experience challenges managing their emotions (Meaney, Hasking, & Reupert, 2016). Alexithymia has been studied in the context of body image and eating disorders. It has been identified as a risk factor for disordered eating and has been linked with body checking and body dissatisfaction (De Berardis et al., 2007).

Difficulty identifying one's emotions and mislabelling emotions as "feeling fat" has been documented among individuals seeking treatment for body image distress (Andersen, 2000). It stands to reason that, if a displacement process is indeed at work, alexithymia may predict fat talk likelihood. Individuals who are high in alexithymia may be especially prone to displacing negative affect (which is abstract, diffuse, and often difficult for these individuals to identify or describe) onto their bodies to make it more concrete, easy to identify, and controllable.

Anti-fat Attitudes

Anti-fat attitudes refer to negative and stigmatized beliefs about individuals who are overweight or obese. Some researchers have posited that fat talk is a behavioural manifestation of anti-fat attitudes as it promotes the thin-ideal and implies that being overweight or obese is unacceptable and to be avoided (Greenhalgh, 2015). Only one empirical study to date has examined the association between anti-fat attitudes and fat talk. Alperin, Hornsey, Hayward, Diedrichs, and Barlow (2014) found a positive correlation between fat talk frequency and anti-fat attitudes. As such, it is possible that fat talk is a manifestation of anti-fat attitudes and, if this is the case, anti-fat attitudes may predict anticipated likelihood of initiating a fat talk conversation. If this is the case it would have important implications for both fat talk prevention and obesity stigma reduction efforts.

Hypotheses

As in Studies 1 and 2, emotion was manipulated through an induction procedure and subsequent intention to engage in fat talk was measured. It was predicted that participants in the sadness manipulation condition would subsequently experience increased sadness and general negative affect as compared to participants in the food-related guilt and control conditions. Moreover, consistent with displacement theory, participants in the sadness condition would

subsequently rate themselves as more likely to initiate a fat talk conversation, and more likely to anticipate that initiating a fat talk conversation would improve their mood as compared to participants in the control condition. There would be no increased likelihood of initiating an unproductive talk conversation or differences in its anticipated impact on mood or body image in the sadness condition.

In terms of food-related guilt, the findings from Study 1 and Study 2 were expected to replicate such that participants in the food-related guilt condition would subsequently experience decreased body image as compared to participants in the sadness and control conditions. Furthermore, as per the Study 1 and 2 results and displacement theory (Bruch, 1978), participants in the food-related guilt condition would subsequently rate themselves as more likely to initiate a fat talk conversation as compared to participants in the neutral control condition. Again, it was anticipated that this displacement process would be unique to fat talk rather than self-disparaging talk in general so there would be no corresponding increased likelihood of initiating an unproductive talk conversation.

Furthermore, based on Study 2 findings, it was predicted that restrained eaters would again feel worse about their bodies and would be more likely to initiate both fat talk and unproductive talk conversations regardless of experimental condition.

Alexithymia was also expected to predict anticipated likelihood of initiating a fat talk conversation. This was hypothesized because displacement theory (Bruch, 1978) predicts that individuals who have difficulty identifying their emotions may be especially prone to displacing negative affect onto their bodies as an emotion regulation strategy. Lastly, anti-fat attitudes was expected to predict anticipated likelihood of initiating a fat talk conversation. This was predicted because fat talk implies that not conforming to the western thin-ideal is unacceptable. As such,

fat talk may be an expression of anti-fat attitudes, and individuals who hold more negative beliefs about individuals who do not conform to the thin-ideal may be more likely to initiate fat talk conversations (Alperin et al., 2014).

Method

Participants

One hundred and fifty female undergraduate students aged 17-25 were recruited from the York University undergraduate research participant pool. Participants received partial course credit for their participation In keeping with Studies 1 and 2, this population was recruited because research has documented high levels of fat talk among young undergraduate women (Salk & Engeln-Maddox, 2011). The mean age of participants in this study was 18.78 (*SD* = 1.62). BMI was calculated using self-reported height and weight with the addition of the same weight correction (see Dutton & McLaren, 2014) as was used in the previous studies to account for the tendency for undergraduate women to under-report their weight (Polivy et al., 2014). The average BMI before the correction was 22.47 (*SD* = 3.58), and the mean BMI after the correction was applied was 23.20 (*SD* = 3.97; range = 15.04 – 37.09) which is in the normal weight range (Centers for Disease Control, 2011). The most common ethnic category with which participants self-identified was Asian (35.6%) followed by Caucasian (21.5%), Middle Eastern (18.8%), Black (15.4%), and Other (6%). Four participants (2.7%) chose not to respond. The most common self-reported place of origin was Canada (59.1%), followed by Asia (14.1%), and the Middle East (12.8%). Participants who identified a place of origin other than Canada had been in Canada a mean of 8.63 years (*SD* = 4.86).

Measures

As in Studies 1 and 2, anticipated likelihood of fat talk and unproductive talk were measured using the same visual analog scales, body image was assessed using the BISS (Cash et al., 2002), trait dietary restraint was assessed using the RRS (Herman & Polivy, 1980), and the same demographics information was collected by questionnaire. The Cronbach alphas for the current study were .84 and .77, respectively.

Mood was measured using a different version of the PANAS in Study 3 as compared to Studies 1 and 2. The Positive and Negative Affect Schedule – Expanded Form (PANAS-X; Watson & Clark, 1994; Appendix P) was used to measure mood. The scale consists of 60 words that describe different emotions. Individuals are asked to identify the extent to which they are currently experiencing the emotion on a 5 point Likert-type scale ranging from *not at all* to *extremely*. Specifically, the sadness subscale was used. The scale's scores have demonstrated sufficient reliability, concurrent validity, and convergent validity in a similar non-clinical sample (Crawford & Henry, 2004). The Cronbach alpha for the current study was .82. The PANAS-X was chosen for its relevant content as well as its prevalence in the mood literature.

Two new measures were added in an effort to illuminate predictors of likelihood of initiating a fat talk conversation. Alexithymia was measured using the Toronto Alexithymia Scale (TAS; Bagby, Parker, Taylor, 1994; Appendix Q). The scale consists of 20 items on a 5 point Likert-type scale ranging from *strongly agree* to *strongly disagree*, which map onto three subscales in addition to summing for a total score. Higher scores indicate a reduced capacity to identify one's emotions, a reduced ability to communicate one's emotions to others, and a tendency to focus on one's external vs internal world. The scale's score have demonstrated adequate reliability (Parker, Taylor, & Bagby, 2003) as well as convergent (Bagby et al., 1994),

discriminant (Parker, Taylor, Bagby, 1993), and concurrent validity (Taylor, Bagby, & Parker, 1992). The total score was used in the current study as a measure of participant's overall alexithymia. The Cronbach alpha for the current study was .82. This scale was selected because it had previously been used in body image research involving non-clinical female samples. (De Berardis et al., 2007) and is pervasive in the literature concerning alexithymia.

Lastly, negative attitudes towards overweight individuals were assessed using the Anti-fat Attitudes Scale (AFA; Morrison & O'Connor, 1999; Appendix R). The scale consists of 5 items on a 5 point Likert-type scale ranging from *strongly disagree* to *strongly agree*. Higher scores demonstrate stronger endorsement of anti-fat attitudes. The scale was chosen in part because its scores have demonstrated adequate concurrent validity and reliability among university student populations (Morrison & O'Connor, 1999). It was also selected because it had previously been used in body image research involving diverse populations (Wrench & Knapp, 2008). The Cronbach alpha for the current study was .78. The AFA was selected for its relevant content.

Procedure

Participants were provided with a link to the study which was hosted on Qualtrics ®. After giving informed consent, participants were randomly assigned to the neutral (control) induction, the food-related guilt induction, or the sadness induction (Appendix S) and underwent the respective induction procedure for 10 minutes. The Velten Mood Induction Procedure (Velten, 1968) was used to induce sadness. This induction differed from the neutral and food-related guilt inductions in that it asks participants to read a series of statements rather than ruminate about an imagined scenario. The Velten Mood Induction Procedure is well-established (Jennings, McGinnis, Lovejoy, Stirling, 2000; Frost & Green, 1982), and has been used

successfully in research (Wagner, Boswell, Kelley, & Heatherton, 2012). The online version has successfully induced sadness in ethnically diverse samples (Göritz, 2007; Göritz & Moser, 2006). Following the induction, participants completed a questionnaire package consisting of the anticipated likelihood of initiating a fat talk conversation measure, the anticipated likelihood of initiating an unproductive conversation measure, the BISS, the PANAS-X, the RRS, the TAS, the AFA, and the demographics questionnaire. Upon completion, in order to negate any possible adverse consequences of the manipulation, participants who underwent the food-related guilt induction or the sadness induction then underwent a positive mood induction (Appendix T), and all participants were provided with an article concerning fat talk and ways to improve one's body image and were debriefed regarding the nature of the study (Appendix U). The study was reviewed and approved by the York University Office of Research Ethics (Appendix V).

Data Analysis Plan

All continuous variables were examined for normality and outliers. Three participants were dropped from the study due to evidence of careless responding. Outliers were replaced with the most extreme score within 3.29 standard deviations (Cosineau & Charlie, 2010). This resulted in the following changes: a raw score of 25 on the anti-fat attitudes scales was changed to 22, and a BMI of 35.07 was changed to 32.92. Likelihood that fat talk would improve one's mood was found to be significantly skewed and was corrected using a log transformation (non-transformed coefficient = 1.47; transformed coefficient = -.495). Missing data were minimal (i.e., less than five percent) and were found to be missing completely at random, ($x^2(132) = 137.03$, $p = .364$.). The main hypotheses regarding group differences by experimental condition as well as differences between restrained and unrestrained eaters were investigated using a series of ANOVAs (experimental condition x restraint status). As in Study 2, participants were

classified as restrained or unrestrained eaters according to their total scores on the Revised Restraint Scale. Using a cut-off score of 15, 40.13% of participants were classified as restrained eaters. A manipulation check was performed using an ANOVA model (sadness x body image dissatisfaction x experimental condition). Predictor variables were examined using linear regression.

Results

Descriptive Statistics

Tables 4 and 5 display the means and standard deviations for all variables of interest by experimental condition, and restraint status. The current sample was similar to other undergraduate female samples at this and other universities. Table 6 displays correlations between fat talk likelihood, unproductive talk likelihood, and the proposed predictor variables.

Table 4
Means (and standard deviations) of all variables of interest by condition

Variable	Food-related Guilt Condition $n = 50$	Sadness Condition $n = 53$	Neutral Control Condition $n = 44$
Likelihood of initiating a fat talk conversation	47.23 (36.43)	32.47 (28.61)	33.72 (30.08)
Likelihood fat talk would improve mood	22.83 (29.74)	21.40 (27.14)	18.82 (26.64)
Likelihood fat talk would improve body image	29.00 (28.82)	29.92 (28.64)	39.95 (30.95)
Likelihood of initiating an unproductive talk conversation	58.98 (34.70)	55.53 (31.39)	66.91 (34.03)
Likelihood unproductive talk would improve mood	29.38 (29.81)	33.06 (24.45)	30.91 (25.99)
Likelihood unproductive talk would improve body image	21.82 (23.92)	20.79 (26.06)	20.45 (22.99)
Body Image	33.38 (11.00)	28.77 (8.56)	29.36 (9.74)
PANAS Sadness Subscale	12.31 (5.02)	12.10 (5.55)	11.62 (5.10)
PANAS Upset	1.96 (1.19)	2.00 (1.12)	1.48 (.85)

Table 5
Means (and standard deviations) for all variables of interest by restraint status

Variable	Restrained Eaters *n* = 59	Unrestrained Eaters *n* = 88
Likelihood of initiating a fat talk conversation	45.43 (32.85)	32.89 (31.19)
Likelihood fat talk would improve mood	20.02 (26.42)	21.76 (28.66)
Likelihood fat talk would improve body image	28.35 (29.89)	35.40 (29.26)
Likelihood of initiating an unproductive talk conversation	59.88 (31.89)	60.26 (34.62)
Likelihood unproductive talk would improve mood	30.56 (24.56)	31.57 (28.17)
Likelihood unproductive talk would improve body image	22.22 (25.26)	20.25 (23.74)
Body Image	35.95 (8.47)	26.88 (8.70)
PANAS Sadness Subscale	12.72 (5.68)	11.55 (4.85)
PANAS Upset Item	1.91 (1.16)	1.77 (1.04)

Table 6
Correlations between fat talk likelihood, unproductive talk likelihood, and predictor variables

Variable	Fat Talk Likelihood	Unproductive Talk Likelihood
Alexithymia	.14	.05
Anti-fat Attitudes	.01	.03

Note: * indicates $p < .05$, ** indicates $p < .01$.

Effects of Experimental Condition

As intended, the randomization procedure produced equivalent groups in terms of age, $F(2,143) = 1.32$, $p = .27$, $\eta^2 = .02$, BMI, $F(2,143) = .07$, $p = .93$, $\eta^2 < .001$, trait dietary restraint, $F(2,47) = 2.36$, $p = .09$, $\eta^2 = .03$, alexithymia, $F(2,145) = 1.46$, $p = .24$, $\eta^2 = .02$, and anti-fat attitudes, $F(2,147) = .92$, $p = .40$, $\eta^2 = .01$.

The manipulation check revealed that the experimental conditions were significantly different in terms of body image, $F(2,144) = 3.48$, $p = .03$, $\eta^2 = .05$, and feelings of upset, $F(2,142) = 3.40$, $p = .03$, $\eta^2 = .046$, but not in terms of sadness, $F(2,142) = 0.21$, $p = .81$, $\eta^2 = .01$. Tukey post-hoc analyses indicated that participants in the food-related guilt condition (M = 33.38, SD = 11.00) endorsed significantly lower body image as compared to participants in the sadness (M = 28.77, SD = 8.56) and neutral control (M = 29.36, SD = 9.74) conditions.

Moreover, participants in the sadness condition (M = 2.00, SD = 1.12) reported feeling significantly more upset as compared to those in the control condition (M = 1.48 SD = 0.85).

ANOVA analyses revealed a significant main effect of experimental condition on likelihood of initiating a fat talk conversation, $F(2,142) = 3.14$, $p = .05$ $\eta^2 = .04$. Tukey post-hoc analyses indicated that participants in the food-related guilt condition were significantly more likely to anticipate initiating a fat talk conversation (M = 47.23, SD = 36.43) as compared to participants in both the sadness (M = 32.47, SD = 28.61) and control conditions (M = 33.72, SD = 30.08). No significant main effects were found in terms of likelihood of initiating an unproductive talk conversation, $F(2,144) = 1.44$, $p = .24$, $\eta^2 = .02$, anticipated likelihood that initiating a fat talk conversation would improve one's body image, $F(2,139) = 1.86$, $p = .16$, $\eta^2 = .03$, or mood, $F(2,140) = .24$, $p = .79$, $\eta^2 = .01$, and anticipated likelihood that initiating an unproductive talk conversation would improve one's body image, $F(2,146) = .04$, $p = .96$, $\eta^2 < .001$, or mood, $F(2,147) = .24$, $p = .78$, $\eta^2 = .01$.

Group Differences by Restraint Status

ANOVA analyses revealed significant main effects of restraint status on anticipated likelihood of initiating a fat talk conversation, $F(1,142) = 5.23$, $p = .02$,$\eta^2 = .04$, and body image, $F(1,142) = 39.23$, $p < .001$, $\eta^2 = .21$, such that restrained eaters reported increased anticipated likelihood of initiating a fat talk conversation and decreased body image as compared to unrestrained eaters. No significant main effects were found in terms of anticipated likelihood of initiating an unproductive talk conversation, $F(1,142) = 0.01$, $p = .95$, $\eta^2 < .001$, anticipated likelihood that initiating a fat talk conversation would improve one's mood, $F(1,142) = 0.13$, $p = .72$, $\eta^2 < .001$, or body image, $F(1,142) = 1.89$, $p = .17$, $\eta^2 = .01$, and anticipated likelihood that initiating an unproductive talk conversation would improve one's mood, $F(1,142) = .05$, $p = .82$,

η^2 <.001, or body image $F(1,142) = .23$, $p = .63$, $\eta^2 = .01$, sadness, $F(1,142) = .21$, $p = .81$, $\eta^2 < .01$, or upset, $F(1,142) = 0.60$, $p = .44$, $\eta^2 = .01$. No interaction effect between dietary restraint status and experimental condition was found on any of the variables of interest: anticipated likelihood of initiating a fat talk conversation, $F(2,136) = 0.60$, $p = .44$, $\eta^2 = .01$, body image, $F(2,141) = .35$, $p = .71$, $\eta^2 = .01$, anticipated likelihood of initiating an unproductive talk conversation, $F(2,141) = .16$, $p = .85$, $\eta^2 < .01$, anticipated likelihood that initiating a fat talk conversation would improve one's mood, $F(2,137) = 1.89$, $p = .16$, $\eta^2 = .03$, or body image, $F(2,133) = .09$, $p = .91$, $\eta^2 < .01$, anticipated likelihood that initiating an unproductive talk conversation would improve one's mood, $F(2,141) = 1.38$, $p = .26$, $\eta^2 = .02$, or body image, $F(2,140) = 1.51$, $p = .23$, $\eta^2 = .02$, sadness, $F(2,139) = .11$, $p = .90$, $\eta^2 <01$, or upset, $F(2,139) = .18$, $p = .84$, $\eta^2 < .01$.

Regression Analyses

Multiple linear regression was used to test whether alexithymia or anti-fat attitudes predicted fat talk likelihood. Neither alexithymia, $R^2 < .01$, $F(1,139) = .47$, $p = .50$, nor anti-fat attitudes, $R^2 = .02$, $F(1,140) = .04$, $p = .84$, significantly predicted likelihood of initiating a fat talk conversation. There was no interaction between experimental condition and alexithymia $R^2 = .02$, $F(1,139) = 3.03$, $p = .08$, nor was there an interaction between experimental condition and anti-fat attitudes $R^2 = .11$, $F(1,140) = 1.58$, $p = .21$.

Discussion

In Study 3 I sought to replicate and extend Studies 1 and 2 by adding a new experimental condition (i.e., sadness) and investigating additional possible predictors of anticipated fat talk (i.e., alexithymia, and anti-fat attitudes). Partial support was found for the study's hypotheses. Participants in the food-related guilt condition felt worse about their bodies and reported greater

anticipated fat talk. This finding is robust as it was initially found in Study 1 and has now replicated in both Study 2 and Study 3.

Furthermore, restrained eaters reported decreased body image and increased fat talk likelihood as compared to unrestrained eaters. In Study 2 restrained eaters also reported decreased body image and increased fat talk likelihood as compared to unrestrained eaters. However, they also reported an increase in unproductive talk likelihood in Study 2 which was not replicated in Study 3. As such, it is unclear from the current set of studies whether restrained eaters are more likely than their unrestrained counterparts to engage in fat talk or if they are just generally more likely to engage in other types of self-disparaging talk. The findings of the present study indicate that this increased anticipated likelihood is unique to fat talk. Further replication is needed to discern whether this finding is robust or reliable.

It may be that there are two types of restrained eaters: globally dissatisfied restrained eaters and body dissatisfied restrained eaters. In Study 2 I may have successfully recruited more globally dissatisfied restrained eaters whose anticipated self-disparaging talk reflect that they were dissatisfied with themselves in areas unrelated to weight and shape. On the other hand, in Study 3 I may have successfully recruited more body-specific-dissatisfied restrained eaters whose anticipated talk reflects this domain-specific dissatisfaction. There is some evidence to support this possible explanation of the discrepancy between the findings in Study 2 and Study 3. There is some research linking restraint with low self-esteem, however, the link between low appearance-related self-esteem and restraint is stronger and more robust (for a review see Mills, et al., 2018). Consequently, it may be that most restrained eaters are dissatisfied with their appearance whereas a smaller subset are more globally dissatisfied across domains.

In terms of the other research questions, participants in the sadness induction condition did report increased feelings of upset as expected but did not report increased anticipated fat talk likelihood. Moreover, the hypotheses regarding the predictors of anticipated fat talk were not supported. Neither alexithymia nor anti-fat attitudes were significant predictors of fat talk likelihood. It appears as though increased anticipated fat talk may be unique to experiencing decreased body esteem as opposed to any type of negative affect (e.g., sadness). This finding fails to support displacement theory as an explanation for why women engage in fat talk. Displacement theory holds that all negative affect should increase fat talk likelihood as opposed to this being unique to negative affect related to weight and shape, but this was not found in Study 3. Furthermore, it does not appear as though fat talk likelihood is a reflection of difficulty identifying or describing one's emotions nor stigmatized beliefs about individuals who are overweight or obese. The present study points to fat talk as a response to negative body image that is more likely to occur among restrained as opposed to unrestrained eaters.

There is some evidence that the sadness manipulation did not work as intended. The Velten statements (Velten, 1968) that were used to induce sadness in the current study are well-established (Jennings et al., 2000; Wagner et al., 2012) and have been used successfully in online research (Göritz et al., 2006). The sadness subscale was trending towards significance when the sadness condition was compared to the control condition which supported the examination of individual items. Moreover, previous studies have successfully used single item measures of mood (Killgore, 1999). Upon review of the individual subscale items, it was found that feelings of upset were statistically significantly higher in the sadness condition as compared to the control condition.

In sum, the findings of Study 3 replicated those of Study 1 and Study 2 such that imagining a scenario in which one has leads to an increased likelihood of fat talk. This was unique to fat talk rather than another type of self-disparaging talk because there is no corresponding increase in unproductive talk. Study 3 also replicated the findings of Study 2 such that restrained eaters were more likely to anticipate initiating a fat talk conversation as compared to unrestrained eaters, however unlike Study 2, Study 3 did not find restrained eaters to have a tendency toward unproductive talk. As such, the findings of Study 3 point to fat talk being unique and distinct from general self-disparaging talk among restrained eaters. Lastly, neither alexithymia nor anti-fat attitudes predicted anticipated fat talk likelihood.

General Discussion

In the current dissertation I aimed to answer three main questions. First, what factors lead to fat talk? Second, are the factors that lead to fat talk unique as compared to other types of self-disparaging talk? And third, are there individual differences in what leads women to anticipate initiating a fat talk conversation? Overall, support for the hypotheses was mixed but the findings have important ramifications for the field of fat talk research as well as clinical implications. The current dissertation was ground breaking in a number of ways. It was the first to examine the factors that lead to fat talk, and it was also the first to measure anticipated fat talk. Most prior fat talk research has been correlational in nature and those studies that were experimental focused on the impact of exposure to fat talk as opposed to fat talk engagement (for review see Shannon & Mills, 2015). Furthermore, it was the first study to investigate whether fat talk is unique as compared to other types of self-disparaging talk. Lastly, it was the first study to test displacement theory in a nonclinical population.

In terms of factors that lead to fat talk, imagining a scenario in which one has overeaten leads individuals to be more likely to anticipate initiating a fat talk conversation. The increased anticipated likelihood is unique to fat talk as opposed to self-disparaging talk as a whole as there was no corresponding increase in likelihood of initiating an unproductive talk conversation. This finding was robust as it replicated across all three studies.

Imagining a scenario in which one has overeaten uniquely predicts fat talk as compared to more general guilt or sadness manipulations. As such, displacement theory does not appear to apply to anticipated fat talk. That is, anticipated fat talk does not appear to reflect a process by which young women displace negative affect onto their bodies. Rather, in the current study anticipated fat talk appears to reflect a state increase in body dissatisfaction. This is more in line with the guilt relieving function of fat talk that was proposed by Nichter and Vukovic (1994) as well as the social support function proposed by Gapinski, Brownell, and LaFrance (2003). Indeed, fat talk is reciprocal and inherently social in nature (Shannon & Mills, 2015), and investigation of explanations that take this into account may prove more fruitful as compared to explanations that focus on intraindividual processes such as displacement theory.

It is also possible that displacement only occurs in individuals that meet criteria for an eating disorder. McFarlane, Urbszat, and Olmsted (2011) conducted an experimental study where individuals who had been diagnosed with eating disorder, restrained eaters, and unrestrained eaters underwent an ineffectiveness induction in an attempt to induce body displacement. They found that feeling ineffective led to increased body concern in individuals who had been diagnosed in an eating disorder but not in restrained eaters or unrestrained eaters. As such, it is possible that displacement is a particularly pathological phenomenon that occurs only in individuals with clinical levels of disordered eating as opposed to the general population.

Indeed, displacement was initially conceptualized as a defense mechanism (Freud, 1937) and it has been found to be an especially maladaptive defense mechanism (Diehl et al., 2014; Vaillant, Bond, & Vaillant, 1986) that is more common among individuals with clinical eating disorders as compared to individuals who do not meet criteria for an eating disorder (Stein, Bronstein, & Weizman, 2003).

It is also possible that the current studies were not able to successfully induce "real" displacement. Anecdotally, as observed by clinicians in treatment settings (e.g., Fairburn & Harrison, 2003), displacement tends to be an intrapersonal process that is often triggered by interpersonal events (e.g., an individual has a dispute with a family member and rather than expressing anger or hurt they focus these emotions on their body and experience body dissatisfaction). As such it may be extremely difficult to induce displacement in a lab or online setting.

An alternative explanation for fat talk in the general population is that is serves a reassurance seeking function (Shannon & Mills, 2015; Nichter. 2000). A situation or event occurs (e.g., overeating) that triggers a decrease in body esteem and, in order to bring their body esteem back to baseline, women engage in fat talk in an attempt to seek reassurance that, although they may have violated the societal ideal in that moment (for example by overeating or eating high calorie foods), they themselves are not truly fat and are still socially accepted by others. In this sense, fat talk is a learned behaviour that is maintained via reinforcement contingencies. In terms of fat talk as a learned behaviour, there is some evidence that daughters may learn to fat talk from their mothers. Arroyo and Andersen (2016) found that mother's and daughter's engagement in fat talk were significantly positively correlated. There is also evidence that supports the hypothesis that far talk serves a reassurance-seeking function and is maintained

by both positive and negative reinforcement contingencies (i.e., reassurance provided in response to fat talk leads to temporary improvement in body esteem along with a temporary decrease in anxiety). For example, Salk and Engeln-Maddox (2011) asked undergraduate women why they engage in fat talk and found that many participants indicated that engaging in fat talk made them feel better about their body. They also found that the most frequently reported response to the participant's fat talk was denial that they were fat. Consequently, it appears as though engagement in fat talk most often results in reassurance that the fat talker is not fat which, based on the qualitative reports, improves women's body esteem in the short-term. Long-term, however, fat talk has been identified as a causal risk factor for body dissatisfaction (Sharpe et al., 2013). It may be that, while useful in the short-term, long-term engagement in and exposure to fat talk normalizes body image distress and perpetuates the thin ideal (Shannon & Mills, 2015).

To date, reassurance-seeking has been mostly studied in the context of depression. Coyne (1978) proposed that individuals who are depressed seek reassurance in response to the lowered self-esteem that they experience. Unfortunately, when individuals engage in excessive reassurance seeking it can alienate those around them which, long-term, results in an increase rather than decrease in distress (Coyne, 1978). There is some evidence that women are more likely to seek reassurance from others when experiencing negative affect and that this reassurance seeking is ultimately linked to an increase in negative affect (Starr & Davila, 2008). This may help explain gender differences in fat talk engagement (Payne et al., 2011).

In terms of individual differences in what leads women to initiate a fat talk conversation, restrained eaters were more likely to anticipate initiating a fat talk conversation as compared to unrestrained eaters. There were no interactions between restraint status and experimental condition so this increased likelihood cannot be adequately explained using displacement theory

(Bruch, 1978). Compeau & Ambwani (2013) found that exposure to fat talk via written vignette reduced food consumption among restrained eaters. Since restrained eaters can be conceptualized as chronic dieters (Herman & Polivy, 1980) it is possible that they are more likely to anticipate initiating a fat talk conversation at any given time because they have identified that it assists them in their efforts at dietary restraint. Future research should investigate this important possibility as restrained eating has been associated with binge-eating and other mental health difficulties (Kenardy, Brown, & Vogt, 2001; Mason, Heron, Braitman, & Lewis, 2016).

Clinical Implications

The finding that thinking about having overeaten and experiencing decreased state body image reliably leads to increased anticipated fat talk likelihood has a number of clinical implications. Firstly, fat talk may be especially likely to occur in certain settings in which one feels as though they have overeaten such as buffet-style school cafeterias. There have been anti-fat talk campaigns launched on various university campuses and there is preliminary evidence that these campaigns successfully reduce fat talk (Garnett et al., 2014). Many of these campaigns involve “fat talk free zones” in which fat talk is actively discouraged. The present findings suggest that it may be especially useful to make areas where individuals are more likely to feel as though they have overeaten or are more likely to experience state decreases in body image (e.g., the cafeteria) “fat talk free zones”.

Secondly, interventions which make individuals less susceptible to negative fluctuations in state body image would likely also decrease fat talk. Rudiger, Cash, Roehrig, & Thompson (2007) found that appearance investment and negative body-image-related cognitions predicted greater state body image variability. On the other hand, Kelly and Stephen (2016) found that self-compassion predicted more stable, positive state body image. There is evidence that short-

term mindfulness-based interventions can increase one's self-compassion and body appreciation and reduce one's body dissatisfaction (Albertson, Neff, & Dill-Shackleford, 2015). As such, short-term interventions that increase self-compassion may make individuals less susceptible to negative fluctuations in state body image and, thus, less likely to engage in fat talk.

Moreover, the finding that restrained eaters are more likely to anticipate initiating a fat talk conversation as compared to unrestrained eaters points to a need for targeted interventions for these individuals. Previous research has documented that fat talk can exacerbate dietary restraint (Compeau & Ambwani, 2013) and body dissatisfaction (Sharpe et al., 2013). As such, eliminating fat talk may be a realistic and concrete goal for these individuals that could have cascading positive consequences in terms of their eating and body image.

In terms of practical recommendations for individuals who encounter fat talk, both self-perception theory (Bem, 1967) and cognitive dissonance theory (Festinger, 1957) hold that many of the negative outcomes associated with fat talk stem from the act of making self-disparaging remarks about one's body. As such, it is recommended that, when presented with an opportunity to reply to an individual who has made a fat talk comment, that individuals resist the social norm to self-degrade, for example, there is some evidence that the adverse impact of fat talk can be negated by replying in a manner that criticizes the thin-ideal (Ambwani, Baumgardner, Guo, Simms, & Abromowitz, 2017).

Limitations and Directions for Future Research

There are some limitations to take into account when considering the implications of the current dissertation. Participants were all female undergraduate students and, while university aged women are the population that is most impacted by fat talk, the homogenous nature of the sample limits the generalizability of the findings. That being said, participants in the current

studies were more diverse in terms of self-reported ethnicity as compared to participants in other fat talk studies conducted to date. Prior to the current studies, the participants in fat talk research were almost exclusively women who self-identified as Caucasian. Future research would benefit from exploring whether the same factors reliably lead to fat talk in older women as well as women outside of university settings. Furthermore, the factors the lead to self-disparaging talk in men would also be a fruitful line of future inquiry. Indeed, there is some research which suggests that "muscle talk" may be the male equivalent to fat talk (Engeln et al., 2013) and this type of talk has been associated with eating disordered behaviours (Sladek, Engeln, & Miller, 2014). This research could use the same methodology as the present study or it could also explore whether the findings of the current study hold when conducted in-lab as compared to online.

Fat talk engagement, the factors that lead to it, and the purpose it serves, may also differ across settings (e.g., online vs in-person; at a restaurant vs at the gym vs a neutral context). Some studies have started to touch upon fat talk in objectifying contexts (e.g., while trying on a swimsuit; Gapinski et al., 2003) and fat talk engagement via social media (e.g. Lee et al., 2013) and future research that continues to explore this avenue would be worthwhile. Given the large role that social media plays in the lives of many young women (Brenner & Smith, 2013) it is especially notable that few studies have investigated fat talk engagement via social media to date. Walker and colleagues (2015) found that engagement in online fat talk was associated with disordered eating. As such, there is some evidence that online fat talk may have similar consequences for women as in-person fat talk. However, little is currently known about whether fat talk via social media differs from in-person fat talk and, if so, how.

In addition, the measures appeared in the same order for all participants across studies. This is due to the subtle nature of the mood induction as there was concern that if participants did

not complete the main measures of interest immediately after the induction (i.e., the anticipated likelihood measures), that participants would return to their baseline mood before completing the measures. Conversely, the trait measures i.e., trait dietary restraint, emotion regulation, alexithymia, anti-fat attitudes) were at the end of the questionnaire package to allow time for mood to return to baseline so as to reduce any possible influence of the induced state fluctuation in mood on participants' responses. The fact that the measures were not counterbalanced may have impacted the findings, and future research would benefit from counterbalancing measure to ensure that the findings are robust and reliable.

Moreover, the food-related guilt manipulation in Study 1 did not result in greater feelings of guilt as measured by the State Shame and Guilt Scale (Marschall et al., 1994) but it did result in lower state body image. It appears as though food-related guilt is not captured well by traditional measures of guilt. To date, there is no empirically validated instrument which has been specifically designed to measure food-related guilt and the development of such an instrument would be a worthwhile area of future research.

Furthermore, the dissertation highlighted potential confounds that can be introduced when conducting research online. The randomization procedure in Study 2 was only partially successful such that the food-related guilt condition had significantly more restrained eaters as compared to the control condition. This discrepancy is the result of the manner in which Qualtrics randomizes conditions combined with the tendency for restrained eaters to be more drawn to food-related stimuli (see Study 1 discussion for a more detailed explanation). This raises concerns that assignment to experimental conditions in online studies is not truly random as participants can lose interest in the study and subsequently be assigned to another experimental condition if they return at a later date to complete it. Zhou & Fishbach (2016)

highlight the issue of participant drop-out and the potential violation of the assumption of random assignment in online research specifically in relation to using Qualtrics with Mechanical Turk samples, however, the present research suggests that this is an issue that one must be mindful of when collecting data with undergraduate samples as well. Online data collection is well-established and ways to reduce drop out have been researched. Reips (2000) encouraged researchers to: personalize the research in some way (e.g., asking for an id number), offer prewarnings as to what the study relates to (e.g., you will be asked to answer questions about your behaviours and interpersonal interactions), and to appeal to conscience (i.e., remind participants that dropping out could negatively impact the quality of the research). The present dissertation incorporated the Reips techniques but still had difficulties with participant drop out in 1 of 3 studies (i.e., this may have led to an uneven distribution of restrained eaters between conditions in Study 2). As such, future experimental research may benefit from additional precautions. Notably, Horton, Rand, & Zeckhauser (2011) suggesting having participants complete a long "warm up task" before the experimental manipulation in order to induce the sunk cost fallacy (i.e., "I have already spent 20 minutes completing the study I might as well finish") and decrease drop out post-manipulation. It is possible that this technique would have prevented the randomization problem in Study 2.

Additionally, anticipated likelihood measures have been successfully used in other social (Gordijn, Finchilescu, Brix, Wijnants, & Koomen, 2008) and health psychology (Leder, et al., 2015) research, however, it is possible that increased anticipated likelihood of engaging in a behaviour may not translate into actual engagement in the behaviour in real-world conditions. Consequently, future research could build off the present studies by testing whether the same factors lead to real-world engagement in fat talk. An experiment following similar methodology

as the current studies wherein participants undergo an induction in which they are asked to ruminate about having overeaten and then given the opportunity to engage in a fat talk conversation with confederates would be the next logical step in the series of studies. Ecological momentary assessment (EMA), a research methodology that assesses individual's emotions and behaviours in real time using smartphones, would also be useful to further examine what leads to real-world fat talk. EMA has been used to examine the antecedents of purging behaviours in bulimia nervosa (Goldschmidt et al., 2014) as well as binge eating (Haedt-Matt & Keel, 2011). It stands to reason that future studies that make use of EMA would be useful in further elucidating the antecedents of fat talk.

Lastly, it is important to note that the anticipated fat talk likelihood measure used here may not have been equally relatable to all individuals as some people may engage in self-disparaging weight and shape-related talk that is actually focused on being thinner than they would like (e.g., "I'm too thin." "I look like a twig." I wish I had more curves."). The present set of studies were the first to restrict the definition of fat talk to focus on self-disparaging remarks made about one's own weight or shape *being larger than the thin-ideal that is pervasive in Western society*. In practice, other studies of fat talk also restricted their definition (see Shannon & Mills, 2015 for a review) by using measures only assessing talking about feeling "too fat." In the current set of studies, individuals who felt that they were too thin would not have been identified by the measures used even though they might make self-disparaging body related comments. However, it is argued here that the more specific definition of fat talk will be most useful in facilitating the next wave of fat talk research that seeks to generate a theory of fat talk engagement that will explain the purpose it serves and provide directions for prevention and intervention. It is possible that the purpose served by engaging in fat talk and "skinny talk" may

be different and, as such, it may be useful to research these different types of self-disparaging talk separately.

Conclusions

Displacement theory (Bruch, 1978) does not appear to be useful in explaining the factors that lead to fat talk among female undergraduate students. Displacement as a coping strategy appears to be specific to individuals who have clinical eating disorders. It is more likely that fat talk serves a reassurance-seeking function for young women in general. The findings of the present set of studies, in combination with the literature published to date, indicate the fat talk is not innocuous. Fat talk appears to be reflective of state decreases in body esteem. An individual who engages in fat talk is probably experiencing body distress. Both overhearing and replying to fat talk are associated with body dissatisfaction and internalization of the thin ideal. There is no "safe" level of fat talk, and even common and socially normative discussions involving fat talk can have harmful effects on participants. There is emerging evidence that the negative impact of fat talk can be lessened by responding in a manner that criticizes unrealistic standards for weight and shape.

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Appendix A

Anticipated likelihood of initiating a fat talk conversation

It is Wednesday afternoon at York University. Two female undergraduate students are sitting in the student center eating lunch after their morning class. After finishing her lunch one of the students declared "I'm worried I'm starting to get fat. This morning when I looked in the mirror I was disgusted with myself. My clothes don't fit like they should and I look terrible. I think I should probably go on a diet. I told myself I would start today but look at all the greasy food I just ate." In response her friend said "You're not fat! I'm fatter than you and I just ate way more food!"

Considering the short story you just read, please answer the following questions by placing an x on the line in the place that best represents your opinion.

1. How likely are you to initiate this type of conversation in the next week?

Not at all ⌊_____⌋ Very much

2. How likely do you think that initiating this type of conversation would be to improve your mood?

Not at all ⌊_____⌋ Very much

3. How likely is it that you would receive reassurance that you are not fat if you made a similar comment to one of your friends?

Not at all ⌊_____⌋ Very much

4. How likely do you think that initiating this type of conversation would be to improve how you feel about your body?

Not at all ⌊_____⌋ Very much

5. How likely do you think that initiating this type of conversation would be to relieve any feelings of guilt that you may have?

Not at all ⎣_____⎦ Very much

6. How likely do you think that initiating this type of conversation would be to worsen your mood?

Not at all ⎣_____⎦ Very much

7. How likely do you think that initiating this type of conversation would be to worsen how you feel about your body?

Not at all ⎣_____⎦ Very much

8. How likely do you think that initiating this type of conversation would be to intensify any feelings of guilt that you may have?

Not at all ⎣_____⎦ Very much

Appendix B

Anticipated likelihood of initiating an unproductive talk conversation

It is Wednesday afternoon at York University. Two female undergraduate students are sitting in the student center eating lunch after their morning class. After finishing her lunch one of the students declared "I'm worried I'm not being productive enough. This morning my alarm went off and then I just laid in bed for another half an hour, I was disgusted with myself. I haven't been working hard enough at school, I feel so behind." In response her friend said "You're not unproductive! I'm more unproductive than you I'm way farther behind I have an essay due on Friday that I haven't even started working on yet".

Considering the short story you just read please answer the following questions by placing an x on the line in the place that best represents your opinion.

How likely are you to initiate this type of conversation in the next week?

Not at all ├──┤ Very much

How likely do you think that initiating this type of conversation would be to improve your mood?

Not at all ├──┤ Very much

How likely is it that you would receive reassurance that you are not fat if you made a similar comment to one of your friends?

Not at all ├──┤ Very much

How likely do you think that initiating this type of conversation would be to improve how you feel about your body?

Not at all ├──┤ Very much

How likely do you think that initiating this type of conversation would be to relieve any feelings of guilt that you may have?

Not at all ⎣_____⎦ Very much

How likely do you think that initiating this type of conversation would be to worsen your mood?

Not at all ⎣_____⎦ Very much

How likely do you think that initiating this type of conversation would be to worsen how you feel about your body?

Not at all ⎣_____⎦ Very much

How likely do you think that initiating this type of conversation would be to intensify any feelings of guilt that you may have?

Not at all ⎣_____⎦ Very much

Appendix C

Body Image States Scale

For each of the items below, check the box beside the one statement that best describes how you feel **RIGHT NOW AT THIS VERY MOMENT.** Read the items carefully to be sure the statement you circle accurately and honestly describes how you feel right now.

1. Right now I feel . . .

Extremely dissatisfied with my physical appearance

Mostly dissatisfied with my physical appearance

Moderately dissatisfied with my physical appearance

Slightly dissatisfied with my physical appearance

Neither dissatisfied nor satisfied with my physical appearance

Slightly satisfied with my physical appearance

Moderately satisfied with my physical appearance

Mostly satisfied with my physical appearance

Extremely satisfied with my physical appearance

2. Right now I feel . . .

Extremely satisfied with my body size and shape

Mostly satisfied with my body size and shape

Moderately satisfied with my body size and shape

Slightly satisfied with my body size and shape

Neither dissatisfied nor satisfied with my body size and shape

Slightly dissatisfied with my body size and shape

Moderately dissatisfied with my body size and shape

Mostly dissatisfied with my body size and shape

Extremely dissatisfied with my body size and shape

3. Right now I feel . . .

Extremely satisfied with my weight

Mostly dissatisfied with my weight

Moderately dissatisfied with my weight

Slightly dissatisfied with my weight

Neither dissatisfied nor satisfied with my weight

Slightly satisfied with my weight

Moderately satisfied with my weight

Mostly satisfied with my weight

Extremely satisfied with my weight

4. Right now I feel . . .

Extremely physically ***attractive***

Very physically ***attractive***

Moderately physically ***attractive***

Slightly physically ***attractive***

Neither attractive nor unattractive

Slightly physically ***unattractive***

Moderately physically ***unattractive***

Very physically ***unattractive***

Extremely physically ***unattractive***

5. Right now I feel . . .

A great deal worse about my looks than I usually feel

Much worse about my looks than I usually feel

Somewhat worse about my looks than I usually feel

Just slightly worse about my looks than I usually feel

About the same about my looks as usual

Just slightly better about my looks than I usually feel

Somewhat better about my looks than I usually feel

Much better about my looks than I usually feel

A great deal better about my looks than I usually feel

6. Right now I feel that I look . . .

A great deal better than the average person looks

Much better than the average person looks

Somewhat better than the average person looks

Just slightly better than the average person looks

About the same as the average person looks

Just slightly worse than the average person looks

Somewhat worse than the average person looks

Much worse than the average person looks

A great deal worse than the average person looks

Appendix D

State Shame and Guilt Scale

The following are some statements that may or may not describe how you are feeling right now. Please rate each statement by circling the number that best corresponds to how you are currently feeling using the 5-point scale below.

Not feeling this way at all — Feeling somewhat this way — Feeling this way very strongly

1 2 3 4 5

1. I feel good about myself.

1 2 3 4 5

2. I want to sink into the floor and disappear.

1 2 3 4 5

3. I feel remorse, regret.

1 2 3 4 5

4. I feel worthwhile, valuable.

1 2 3 4 5

5. I feel small.

1 2 3 4 5

6. I feel tension about something I have done.

1 2 3 4 5

7. I feel capable, useful.

1 2 3 4 5

8. I feel like I am a bad person.

1 2 3 4 5

9. I cannot stop thinking about something bad I have done.

1 2 3 4 5

10. I feel proud.

1 2 3 4 5

11. I feel humiliated, disgraced.

1 2 3 4 5

12. I feel like apologizing, confessing.

1 2 3 4 5

13. I feel pleased about something I have done.

1 2 3 4 5

14. I feel worthless, powerless.

1 2 3 4 5

15. I feel bad about something I have done.

1 2 3 4 5

Appendix E

Positive and Negative Affective Schedule

This scale consists of a number of words that describe different feelings and emotions. Read each item and then list the number from the scale below next to each word. Indicate to what extent you feel this way right now, that is, at the present moment.

1 Very Slightly or Not at All
2 A Little
3 Moderately
4 Quite a Bit
5 Extremely

_____ 1. Interested

_____ 2. Distressed

_____ 3. Excited

_____ 4. Upset

_____ 5. Strong

_____ 6. Guilty

_____ 7. Scared

_____ 8. Hostile

_____ 9. Enthusiastic

_____ 10. Proud

_____ 11. Irritable

_____ 12. Alert

_____ 13. Ashamed

_____ 14. Inspired

_____ 15. Nervous

_____ 16. Determined

_____ 17. Attentive

_____ 18. Jittery

_____ 19. Active

_____ 20. Afraid

Appendix F

Demographics Questionnaire

URPP ID:

Age:

Height:

Weight:

Ethnicity:

Year of study:

Faculty of study (e.g., arts, science, health, fine arts):

Number of classes currently enrolled in:

Country of origin:

Number of years spent living in Canada (if applicable):

Appendix G

Informed Consent Form

If you participate in this study, you will be asked to complete a number of questionnaires and activities to help us better understand how the interpersonal interactions of undergraduate students are shaped by their beliefs about themselves. It should take about an hour to complete the study. The test forms and any other information collected during testing will be viewed only by the principal investigators and research assistants and will be stored in a secure place for five years, after which they will be destroyed. A code number will be assigned to the data and your name will not appear on any of the data. Refusal to participate, refusal to answer any particular questions or withdrawal from the study will not affect the participant's relationship with York University, the researcher or any other group associated with the project. The results of this study will be used to fulfill the dissertation requirement for the Doctorate of Philosophy in Clinical Psychology at York University and may also be submitted for publication in a peer reviewed academic journal or presented at an academic conference. However, the data will be presented in aggregate form and will in no way include any information that will reveal the identity of any of the participants.

There are minimal risks inherent in this study. Although it is unlikely that participants will experience distress during this study, some questionnaires may ask about sensitive personal issues involving mental health. Should anyone experience significant distress after participating they are encouraged to contact the Counselling and Disabilities Services Crisis Services at York University for immediate assistance. You will receive 1% toward your final grade in PSYC 1010 upon completing this study. If new information related to the risks and/or benefits of this study are obtained, you will be informed. You may choose not to answer any questions, or to terminate participation at any time throughout the study without penalty. If you decide to withdraw from the study, any information already collected will be destroyed. In no way does signing this consent form waive your legal rights nor does it relieve the investigators, sponsors or involved institutions from their legal and professional responsibilities. All information derived from this study will be kept confidential to the limits allowed by law. Only the principal investigator and research assistants will have access to the information. This research has been reviewed and approved by the Human Participants in Research Committee, York University's Ethics Review Board and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines. Should you have any questions or concerns about this study at any point during or after it is completed, please feel free to contact Amy Shannon (PhD Candidate and Researcher) or Dr. Jennifer Mills (Principal Investigator) or the York University Psychology Graduate Office. If you wish to contact someone not connected with the project about your rights as a research participant, or have any questions about the consent process, please contact Ms. Alison Collins-Mrakas, Office of Research Ethics.

I have read this form about the nature and procedures of the study, have received a copy, and understand it in full. I agree to participate in the study and I give consent to have the information used for purposes of the study. I have been assured that the lead investigator will respond appropriately to any questions that I may have. I have been fully informed of the potential risks and/or benefits of the study.

Participant's Signature	Participant's Name	Date
Researcher's Signature	Researcher's Name	Date

Appendix H

Food-Related Guilt Induction (used in Studies 1, 2, and 3)

Think about a food or foods which you feel guilty eating. Imagine that you are eating large quantities of this food. Imagine that the food is sitting in front of you. Imagine how the food smells. Imagine how the food tastes. Imagine the texture of the food.

Please complete the following sentence:

I am eating _____which is extremely fattening but it tastes really good. Since it is so fattening, I feel very guilty about eating it.

Appendix I

Neutral Induction (used in Studies 1, 2, and 3)

Think about a book or movie that you have read or seen recently. Imagine chatting about this book with a friend. Imagine what details you would tell your friend about the book. Recall how the book or movie made you feel and imagine expressing this to your friend. Imagine how your friend would respond.

Please complete the following sentences:

I am chatting with _____about

_____.

Appendix J

Information about Fat Talk and How to Improve Your Body Image

Fat Talk describes statements made in conversation that reinforce unrealistic beauty ideals and contribute to women and men's dissatisfaction with their bodies. Statements like "I'm so fat," "Do I look fat in this?" and "She's too fat to be wearing that swimsuit" are Fat Talk. Both hearing and engaging in fat talk is associated with a number of negative outcomes including low self-esteem, depressed mood, and eating pathology.

How can one stop the fat talk phenomenon and improve his or her body image?

1. Consciously correct yourself if you Fat Talk. Replace those thoughts with something realistic and positive.
2. Never Fat Talk in front of your friends.
3. Don't compare your body to others.
4. Appreciate your body for what it can do.
5. Be critical of the body-related messages conveyed by the media.

For more information please visit http://bi3d.tridelta.org/ourinitiatives/fattalkfreeweek.

Appendix K

York University Research Ethics Approval

YORK
UNIVERSITÉ
UNIVERSITY

Certificate #:	**STU 2017 - 001**
Approval Period:	**01/04/17-01/04/18**

OFFICE OF RESEARCH ETHICS (ORE)

ETHICS APPROVAL

To: **Amy Shannon**
Graduate Student of Clinical Psychology, Faculty of Health

From: Alison M. Collins-Mrakas, Sr. Manager and Policy Advisor, Research Ethics
(on behalf of Denise Henriques, Chair, Human Participants Review Committee)

Date: Wednesday, January 04, 2017

Title: **An Experimental Investigation of the Factors that Lead to Fat Talk**

Risk Level: ☒ Minimal Risk ☐ More than Minimal Risk

Level of Review: ☒ Delegated Review ☐ Full Committee Review

I am writing to inform you that this research project, **"An Experimental Investigation of the Factors that Lead to Fat Talk"** has received ethics review and approval by the Human Participants Review Sub-Committee, York University's Ethics Review Board and conforms to the standards of the Canadian Tri-Council Research Ethics guidelines.

Note that approval is granted for one year. Ongoing research – research that extends beyond one year – must be renewed prior to the expiry date.

Appendix L

Revised Restraint Scale

Please circle the response that most applies to you.

1. How often are you dieting?

Never Rarely Sometimes Usually Always

2. What is the maximum amount of weight you have ever lost within one month (in pounds)?

0–4 5–9 10–14 15–19 20

3. What is your maximum weight gain within a week (in pounds)?

0–1 1.1–2 2 .1–3 3.1–5 5.1

4. in a typical week, how much does your weight fluctuate (in pounds)?

0–1 1.1–2 2.1–3 3.1–5 5.1

5. Would a weight fluctuation of five pounds affect the way you live your life?

Not at all Slightly Moderately Extremely

6. Do you eat sensibly in front of others and splurge alone?

Never Rarely Often Always

7. Do you give too much time and thought to food?

Never Rarely Often Always

8. Do you have feelings of guilt after overeating?

Never Rarely Often Always

9. How conscious are you of what you're eating?

Not at all Slightly Moderately Extremely

10. How many pounds over your desired weight were you at your maximum weight?

0–1 1–5 6–10 11–20 21

Appendix M

Emotion Regulation Questionnaire

We would like to ask you some questions about your emotional life, in particular, how you control (that is, regulate and manage) your emotions. The questions below involve two distinct aspects of your emotional life. One is your emotional experience, or what you feel like inside. The other is your emotional expression, or how you show your emotions in the way you talk, gesture, or behave. Although some of the following questions may seem similar to one another, they differ in important ways. For each item, please answer using the following scale:

1----------2----------3----------4----------5----------6----------7
strongly disagree neutral strongly agree

1. ____ When I want to feel more *positive* emotion (such as joy or amusement), I *change what I'm thinking about*.

2. ____ I keep my emotions to myself.

3. ____ When I want to feel less *negative* emotion (such as sadness or anger), I *change what I'm thinking about*.

4. ____ When I am feeling *positive* emotions, I am careful not to express them.

5. ____ When I'm faced with a stressful situation, I make myself *think about it* in a way that helps me stay calm.

6. ____ I control my emotions by *not expressing them*.

7. ____ When I want to feel more *positive* emotion, I *change the way I'm thinking* about the situation.

8. ____ I control my emotions by *changing the way I think* about the situation I'm in.

9. ____ When I am feeling *negative* emotions, I make sure not to express them.

10. ____ When I want to feel less *negative* emotion, I *change the way I'm thinking* about the situation.

Appendix N

Academic-Related Guilt Induction (used in Study 2)

Think about a situation in which you felt guilty for something you have done in an academic setting (e.g., cheating on a test, handing in an assignment late, skipping class). Imagine that situation is now occurring. Concentrate on how your behaviour in that situation made you feel.

Please complete the following sentence:

Right now I feel guilty because I am remembering when I _____ (please describe the situation that you are thinking about in the blank space below)

Appendix O

Ethics Amendment for Study 2

YORK
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Certificate #:	**STU 2017 - 001**
Initial Approval:	**01/04/17-01/04/18**
Amendments:	**Amendment approved: 03/08/17**
Renewals:	
Current Approval Period:	**01/04/17-01/04/18**

OFFICE OF RESEARCH ETHICS (ORE)

ETHICS AMENDMENT APPROVAL

To: **Amy Shannon - Graduate Student**
Clinical Psychology
Faculty of Health

From: Alison M. Collins-Mrakas, Sr. Manager and Policy Advisor, Research Ethics
(on behalf of Denise Henriques, Chair, Human Participants Review Committee)

Date: Wednesday, March 08, 2017

Title: **An Experimental Investigation of the Factors that Lead to Fat Talk**

Risk Level: ☒ Minimal Risk ☐ More than Minimal Risk

Level of Review: ☒ Delegated Review ☐ Full Committee Review

With respect to your research project entitled, **"An Experimental Investigation of the Factors that Lead to Fat Talk",** the committee notes that, as there are no substantive changes to either the methodology employed or the risks to participants in and/or any other aspect of the research project, a renewal of approval re the proposed amendment(s) to the above project is granted.

Any further changes to the approved protocol must be reviewed and approved through the amendment process by submission of an amendment application to the HPRC prior to its implementation.

Appendix P

Positive and Negative Affect Schedule – Expanded Form

This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you feel this way currently. Use the following scale to record your answers:

1 = very slightly or not at all
2 = a little
3 = moderately
4 = quite a bit
5 = extremely

_____ cheerful _____ sad _____ active _____ angry at myself
_____ disgusted _____ calm _____ guilty _____ enthusiastic
_____ attentive _____ afraid _____ joyful _____ downhearted
_____ bashful _____ tired _____ nervous _____ sheepish
_____ sluggish _____ amazed _____ lonely _____ distressed
_____ daring _____ shaky _____ sleepy _____ blameworthy
_____ surprised _____ happy _____ excited _____ determined
_____ strong _____ timid _____ hostile _____ frightened
_____ scornful _____ alone _____ proud _____ astonished
_____ relaxed _____ alert _____ jittery _____ interested
_____ irritable _____ upset _____ lively _____ loathing
_____ delighted _____ angry _____ ashamed _____ confident
_____ inspired _____ bold _____ at ease _____ energetic
_____ fearless _____ blue _____ scared _____ concentrating
_____ disgusted with myself _____ shy _____ drowsy
_____ dissatisfied with myself

Appendix Q

Toronto Alexithymia Scale – 20

Please indicate the response that best represents your level of agreement with each of the following statements.

1. I am often confused about what emotion I am feeling.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

2. It is difficult for me to find the right words for my feelings.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

3. I have physical sensations that even doctors don't understand.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

4. I am able to describe my feelings easily.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

5. I prefer to analyze problems rather than just describe them.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

6. When I am upset, I don't know if I am sad, frightened, or angry.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

7. I am often puzzled by sensations in my body.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

8. I prefer to just let things happen rather than to understand why they turned out that way.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

9. I have feelings that I can't quite identify.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

10. Being in touch with emotions is essential.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

11. I find it had to describe how I feel about people.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

12. People tell me to describe my feelings more.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

13. I don't know what's going on inside me.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

14. I often don't know why I am angry

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

15. I prefer talking to people about their daily activities rather than their feelings.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

16. I prefer to watch "light" entertainment shows rather than psychological dramas.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

17. It is difficult for me to reveal my innermost feelings, event to close friends.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

18. I can feel close to someone, even in moments of silence.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

19. I find examination of my feelings useful in solving personal problems.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

20. Looking for hidden meanings in movies or plays distracts from their enjoyment.

Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

Appendix R

Anti-fat Attitudes Scale

Please indicate how much you agree or disagree with each of the following statements:

1. Fat people are less physically attractive than thin people
a) Strongly Disagree
b) Disagree
c) Neither Disagree nor Agree
d) Agree
e) Strongly Agree

2 I would never date a fat person
a) Strongly Disagree
b) Disagree
c) Neither Disagree nor Agree
d) Agree
e) Strongly Agree

3. On average, fat people are lazier than thin people
a) Strongly Disagree
b) Disagree
c) Neither Disagree nor Agree
d) Agree
e) Strongly Agree

4. Fat people only have themselves to blame for their weight
a) Strongly Disagree
b) Disagree
c) Neither Disagree nor Agree
d) Agree
e) Strongly Agree

5. It is disgusting when a fat person wears a bathing suit at the beach
a) Strongly Disagree
b) Disagree
c) Neither Disagree nor Agree
d) Agree
e) Strongly Agree

Appendix S

Velten Sadness Mood Induction (Used in study 3)

On the following pages you will find someone's self-referent statements and thoughts. Read through all the statements and think about them for a while. Read each of the statements to yourself and then read each of the statements out loud. Put yourself into the person's emotional situation and consider when things were similar for you and how you felt. Let each statement work on you. Adopt the feelings and thoughts and try to make this mood your own. Take as much time as you want.

1. Today is neither better nor worse than any other day.
2. However, I feel a little low today.
3. I feel rather sluggish now.
4. Sometimes I wonder whether school is all that worthwhile.
5. Every now and then I feel so tired and gloomy that I'd rather just sit than do anything.
6. I can remember times when everybody but me seemed full of energy.
7. Too often I have found myself staring listlessly into the distance, my mind a blank, when I definitely should have been studying.
8. It has occurred to me more than once that study is basically useless, because you forget almost everything you learn anyway.
9. People annoy me; I wish I could be by myself.
10. I've had important decisions to make in the past, and I've sometimes made the wrong ones.
11. I do feel somewhat discouraged and drowsy — maybe I'll need a nap when I get home.
12. Perhaps university takes more time, effort, and money than it's worth.
13. Sometimes I wonder if my friends are just using me.
14. I just don't seem to be able to get going as fast as I used to.
15. There have been days when I felt weak and confused, and everything went miserably wrong.
16. Just a little bit of effort tires me out.

17. I've had daydreams in which my mistakes kept occurring to me sometimes I wish I could start over again.

18. I'm ashamed that I've cause my parents needless worry.

19. I feel terribly tired and indifferent to things today.

20. Just to stand up would take a big effort.

21. I'm getting tired out. I can feel my body getting exhausted and heavy.

22. I'm beginning to feel sleepy. My thoughts are drifting.

23. At times I've been so tired and discouraged that I went to sleep rather than face important problems.

24. My life is so tiresome — the same old thing day after day depresses me.

25. I couldn't remember things right now if I had to.

26. I just can't make up my mind; it's so hard to make simple decisions.

27. I want to go to sleep — I feel like just closing my eyes and going to sleep right here.

28. I'm not very alert; I feel listless and vaguely sad.

29. I've doubted that I'm a worthwhile person.

30. I feel worn out. My health may not be as good as it's supposed to be.

31. It often seems that no matter how hard I try, things still go wrong.

32. I've noticed that no one seems to really understand or care when I complain or feel unhappy.

33. I'm uncertain about my future

34. I'm discouraged and unhappy about myself.

35. I've lain awake at night worrying so long that I hated myself.

36. Things are worse now than when I was younger.

37. The way I feel now, the future looks boring and helpless.

38. My parents never really tried to understand me.

39. Some very important decisions are almost impossible for me to make.

40. I feel tired and depressed; I don't feel like working on the things I know I must get done.

41. I feel horribly guilty about how I've treated my parents at times.

42. I have the feeling that I just can't reach people.

43. Things are easier and better for other people than for me. I feel like there's no use in trying again.

44. Often people make me very upset. I don't like to be around them.

45. It takes too much effort to convince people of anything there's. No point in trying.

46. I fail in communicating with people about my problems.

47. It's so discouraging the way people don't really listen to me.

48. I've felt so alone before, that I could have cried.

49. Sometimes I've wished I could die.

50. My thoughts are so slow and downcast I don't want to think or talk.

51. I just don't care about anything. Life just isn't any fun.

52. Life seems too much for me anyhow — my efforts are wasted.

53. I'm so tired

54. I don't concentrate or move. I just want to forget about everything.

55. I have too many bad things in my life.

56. Everything seems utterly futile and empty.

57. I feel dizzy and faint. I need to put my head down and not move.

58. I don't want to do anything.

59. All of the unhappiness of my past life is taking possession of me.

60. I want to go to sleep and never wake up.

Appendix T

Velten Positive Mood Induction (used in Study 3 to undue any possible lingering impacts of the negative mood manipulation)

On the following pages you will find someone's self-referent statements and thoughts. Read through all the statements and think about them for a while. Read each of the statements to yourself and then read each of the statements out loud. Put yourself into the person's emotional situation and consider when things were similar for you and how you felt. Let each statement work on you. Adopt the feelings and thoughts and try to make this mood your own. Take as much time as you want.

1. Today is neither better nor worse than any other day.
2. I do feel pretty good today, though.
3. I feel light-hearted.
4. This might turn out to have been one of my good days.
5. If your attitude is good, then things are good, and my attitude is good.
6. I've certainly got energy and self-confidence to spare.
7. I feel cheerful and lively.
8. On the whole, I have very little difficulty in thinking clearly.
9. My parents are pretty proud of me most of the time.
10. I'm glad I'm in university — it's the key to success nowadays.
11. For the rest of the day, I bet things will go really well.
12. I'm pleased that most people are so friendly to me.
13. My judgement about things is sound.
14. It's encouraging that as I get farther into my major, it's going to take less study to get good grades.
15. I'm full of energy and ambition — I feel like I could go a long time without sleep.

16. This is one of those days when I can grind out school work with practically no effort at all.
17. My judgement is keen and precise today. Just let someone try to put something over on me.
18. When I want to, I can make friends extremely easily.
19. If I set my mind to it, I can make things turn out fine.
20. I feel enthusiastic and confident now.
21. There should be opportunity for a lot of good times coming along.
22. My favorite song keeps going through my head.
23. Some of my friends are so lively and optimistic.
24. I feel talkative — I feel like talking to almost anybody.
25. I'm full of energy, and am really getting to like the things I'm doing on campus.
26. I'm able to do things accurately and efficiently.
27. I know good and well that I can achieve the goals I set.
28. Now that it occurs to me, most of the things that have depressed me wouldn't have if I'd just had the right attitude.
29. I have a sense of power and vigor.
30. I feel so vivacious and efficient today — sitting on top of the world.
31. It would really take something to stop me now!
32. In the long run, it's obvious that things have gotten better and better during my life.
33. I know that in the future I won't over-emphasize so-called "problems".
34. I'm optimistic that I can get along very well with most of the people I meet.
35. I'm too absorbed in things to have time to worry.

36. I'm feeling amazingly good today!
37. I am particularly inventive and resourceful in this mood.
38. I feel superb! I think I can work to the best of my ability.
39. Things look good. Things look great!
40. I feel that many of my friendships will stick with me in the future.
41. I can find the good in almost anything.
42. I feel so gay and playful today I feel like surprising someone by telling a silly joke.
43. I feel an exhilarating animation in all I do.
44. I feel highly perceptive and refreshed.
45. My memory is in rare form today.
46. In a buoyant mood like this one, I can work fast and do it right the first time.
47. I can concentrate hard on anything I do.
48. My thinking is clear and rapid.
49. Life is so much fun; it seems to offer so many sources of fulfillment.
50. Things will be better and better today.
51. I can make decisions rapidly and correctly; and I can defend them against criticism easily.
52. I feel industrious as heck — I want something to do!
53. Life is firmly in my control.
54. I wish somebody would play some good loud music.
55. This I great — I really do feel good. I am elated about things.
56. I'm really feeling sharp now.
57. This is just one of those days when I'm ready to go!

58. I feel like bursting with laughter – I wish somebody would tell a joke and give me an excuse!
59. I'm full of energy.
60. God, I feel great!

Appendix U

Study 3 Debriefing

This study concerned the phenomenon of Fat Talk. Fat Talk describes statements made in conversation that reinforce unrealistic beauty ideals and contribute to women's dissatisfaction with their bodies. Statements like "I'm so fat," "I look fat in these jeans?", and "I need to lose five pounds" are Fat Talk. Both hearing and engaging in fat talk is associated with a number of negative outcomes including low self-esteem, depressed mood, and eating pathology.

Specifically, this study explored whether feeling certain negative emotions (i.e., guilt or sadness) would lead women to rate themselves as more likely to initiate a Fat Talk conversation. We anticipate that participants who were induced to feel guilty (i.e., by imagining that they were eating a large quantity of fattening food) or sad (i.e., by repeating a number of negatively valenced statements) will rate themselves as more likely to initiate a Fat Talk conversation as compared to individuals who underwent a neutral induction.

How can one stop the fat talk phenomenon and improve her body image?

1. Consciously correct yourself if you Fat Talk.
2. Replace those thoughts with something realistic and positive.
3. Never Fat Talk in front of your friends.
4. Don't compare your body to others.
5. Appreciate your body for what it can do.
6. Be critical of the body-related messages conveyed by the media.

For more information about fat talk, body image, and eating pathology please visit the National Eating Disorders Information Centre website at www.nedic.ca.

Appendix V

Ethics Amendment for Study 3

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OFFICE OF
RESEARCH
ETHICS (ORE)

Certificate #:	**STU 2017 - 001**
Initial Approval:	**01/04/17-01/04/18**
Amendments:	**Amendment approved: 03/08/17** **2nd Amendment approved: 09/28/17**
Renewals:	
Current Approval Period:	**01/04/17-01/04/18**

ETHICS AMENDMENT APPROVAL

To: **Amy Shannon - Graduate Student**
Clinical Psychology
Faculty of Health

From: Alison M. Collins-Mrakas, Sr. Manager and Policy Advisor, Research Ethics
(on behalf of Veronica Jamnik, Chair, Human Participants Review Committee)

Date: Thursday, September 28, 2017

Title: **An Experimental Investigation of the Factors that Lead to Fat Talk**

Risk Level: ☒ Minimal Risk ☐ More than Minimal Risk

Level of Review: ☒ Delegated Review ☐ Full Committee Review

With respect to your research project entitled, **"An Experimental Investigation of the Factors that Lead to Fat Talk",** the committee notes that, as there are no substantive changes to either the methodology employed or the risks to participants in and/or any other aspect of the research project, a renewal of approval re the proposed amendment(s) to the above project is granted.

Any further changes to the approved protocol must be reviewed and approved through the amendment process by submission of an amendment application to the HPRC prior to its implementation.

Appendix W

Tri-Council Research Ethics Certificate

PANEL ON RESEARCH ETHICS
Navigating the ethics of human research

TCPS 2: CORE

Certificate of Completion

This document certifies that

Amy Shannon

has completed the Tri-Council Policy Statement:
Ethical Conduct for Research Involving Humans
Course on Research Ethics (TCPS 2: CORE)

Date of Issue: **30 June, 2015**